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UNIVERSITY OF CAMBRIDGE

# DEPARTMENT OF APPLIED ECONOMICS

EIGHTEENTH REPORT

ACTIVITIES IN THE PERIOD

OCTOBER 1977 TO SEPTEMBER 1978

# Committee of Management, January 1978

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IROTER BERRETEOR

OCTURED 1977 TO SEPTEMBER 197

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#### EIGHTEENTH REPORT OF THE

#### DEPARTMENT OF APPLIED ECONOMICS

(covering the year October 1977 to September 1978)

# I. RESEARCH. ACTIVITIES

This section outlines the work done in 1977-78 on the research projects being conducted in the Department, including the new projects started in the current academic year.

# ECONOMICS

GROWTH AND FLUCTUATIONS IN THE BRITISH ECONOMY:
PROJECTIONS FOR PLANNING

This project is under the direction of Professor Stone and Dr
Barker. The main results of the research were previously
published in the series A Programme for Growth (London, Chapman
and Hall) in which twelve volumes appeared. This series has
been replaced by a new series, Cambridge Studies in Applied
Econometrics, in which three books have appeared: Models and
Projections of Demand in Post-War Britain by Angus Deaton (1975),
Economic Structure and Policy by members of the project, edited
by Terence Barker (1976) and Public Policy and the Corporation
by Mervyn King (1977).

The other research staff working on the project during the period covered by this report were as follows: Mr J.A. Beath, Dr V.K. Borooah, Mr A. Lawson, Mr A.W.A. Pêterson, Mr L.A. Winters, and Mr R. Witcomb. Dr D.A. Livesey, Dr G. Meeks and Mr D.A. Vines were associated with the work of the project.

The main research task of the project is the investigation of the present structure and future prospects of the British economy. The approach of the project has been to construct a computable, disaggregated model of the economy, and to use it to demonstrate and analyse future growth paths under a variety of assumptions about the development of the world economy and the course of economic policy. The current version of the model, which is estimated for 40 industries, with 1970 as the price base year, projects the dynamic time path of the economy over the period 1973-85.

After consultation with the Committee of Management and the University authorities, a limited company, Cambridge Econometrics, has been established to make the projections of the model available to a wide range of organisations. The Managing Director of the company, Hervey Gibson, and the other economists employed will be associated with the work of the project in the development of the model. It is intended that any surplus earned will be devoted to the financing of research within the Department.

Besides the work on the dynamic model, members of the project have undertaken research in the following areas: corporate pricing and financial behaviour, the behaviour of building societies, the theory of expectation formation, the modelling and projection of energy demand, and the determinants of volumes and prices in foreign trade.

# Publications, papers and conferences

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

- Barker, T.S. (1977) Making the Cambridge Growth Project model dynamic. Medium Term Dynamic Forecasting, edited by W.F. Gossling, Input-Output Research Association, London.
- Barker, T.S., A.W.A. Peterson and L.A. Winters (1978) Britain's three economic options, The Observer, 15.1.78.
- Barker, T.S. (forthcoming a) Towards strategic paths in economic planning, in J.R.N. Stone and A.W.A. Peterson (eds.)

  <u>Econometric Contributions to Public Policy</u>, Macmillan,

  <u>London</u>.
- Barker, T.S. (forthcoming b) A priori constraints and the analysis of British imports. Publication des Actes du IIIème
  Colloque International d'Econometrie Appliquée, Brussels,
  February 1976, editor R. Courbis, I.N.S.E.E., Paris.
- Barker, T.S. (forthcoming c) Economic policy formulation in a large-scale model in S. Holly, B. Rustem and M.B. Zarrop (eds.) Optimal Control for Econometric Models: An Approach to Economic Policy Formulation, Macmillan, London.
- Beath, J.A. (forthcoming) Target profits; cost expectations and the incidence of the corporate income tax, Review of Economic Studies.
- Meeks, G. (1977) Mergers: a riposte (with J.G. Meeks).

  The Financial Times, 30.12.77.
- Peterson, A.W.A. (forthcoming a) Policy choice using a large econometric model. Proceedings of the IFAC/IFORS/IIASA Workshop, Poland, June 1977, Pergamon Press.
- Peterson, A.W.A. (forthcoming b) Total factor productivity in the UK: a disaggregated analysis in K.E. Schott and K.D. Patterson (eds.) The Measurement of Capital:
  Theory and Practice, Macmillan.

Peterson, A.W.A. (forthcoming c) Factor demand functions in K.E. Schott and K.D. Patterson (eds.) The Measurement of Capital: Theory and Practice, Macmillan.

Peterson, A.W.A. (forthcoming d) Fuel use in the UK: a study of substitution responses, forthcoming in Energy Policy.

Stone, J.R.N. and A.W.A. Peterson (eds.) Econometric
Contributions to Public Policy. Macmillan (forthcoming).

Winters, L.A. (1978) An accounting framework for various balance of payments theories, <u>Journal of Economic Studies</u>, May.

Winters, L.A. (forthcoming) Projecting Exports. Cambridge
Studies in Applied Econometrics, Chapman and Hall, London.

The following papers have been presented at conferences:

SSRC Conference on Theories of Rational Expectations, London, March 1978.

Tony Lawson

An adaptive expectations mechanism which is consistent with the permanent income hypothesis and with the theory of rational expectations.

Conference on Industrial Implications of Economic Policy, Pembroke College, Cambridge, June 1978.

Terry Barker MDM as a technique for industrial planning

David Vines Properties of MDM

Vani Borooah A comparison of UK models

William Peterson Projecting the economy

Alan Winters World trade and inflation 1978-1985

John Beath Economic policy 1978-1985

Alan Winters, Macroeconomic projections, UK 1978-1985 Tony Lawson & William Peterson

Geoffrey Meeks Companies, industries and MDM

Roger Witcomb, Industrial projections 1978-1985
John Beath &
William Peterson

Terry Barker Industrial submodels in MDM

William Peterson A submodel for energy industries

Conference on Modelling the Economy, University of Warwick, June 1978.

William Peterson A recursive model of employment and hours worked.

Conference of European Production Study Group, University of Umea, Sweden, August 1978.

William Peterson Capital goods and technical change: some theoretical problems.

European Congress of the Econometric Society, Geneva, September 1978.

J.A. Beath Pricing behaviour in British industry.

#### EFFECTS OF ECONOMIC POLICY

Work on this related group of projects, which was partly financed by the SSRC, continued throughout 1977-78 under the general direction of Mr W.A.H. Godley. Research staff working on the project (the Cambridge Economic Policy Group, CEPG) all or part of the time were as follows: Mr P.E. Atkinson, Mr K.J. Coutts, Mr T.F. Cripps, Mr M.J. Fetherston, Mr B.C. Moore, Mr J. Rhodes, Mr R. Tarling, Mr T.S. Ward, Mr S.F. Wilkinson.

Following a decision by the SSRC on how our work should be financed Messrs Rhodes, Moore, Tarling and Wilkinson spent most of the year working on separately designated (though closely related) projects which in this year's report are, accordingly, shown under separate headings.

The main objective of this project, as for many years in the past, has been to develop a system of information which can be used to simulate the medium-term developments of the UK economy and to display the consequences of alternative assumptions about macroeconomic policy strategies. Once again the computer model of the economy underwent minor modifications and was again the basis for alternative medium-term projections and policy analysis which was published in the Economic Policy Review No.4, March 1978.

As in previous years the CEPG deliberately intervened on a number of occasions in the public discussion on economic policy, sometimes in the form of newspaper articles; more fundamental research, of a kind which it is hoped will make a significant contribution to knowledge, has underpinned these contributions to the public discussion and the research priorities have always been dictated by the requirement that these contributions should be properly grounded in empirical research.

# Bibliography

Economic Policy Review, No.4, March 1978, containing the following:

General review and policy analysis	stillen, (Section W),
The effects of different strategies for the UK economy	T.F. Cripps, M.J. Fetherston & T.S. Ward
A return to full employment?	B.C. Moore, J.Rhodes, R.J. Tarling & S.F. Wilkinson
Causes of growth and recession in world trade	T.F. Cripps
The direct costs to Britain of belonging to the EEC	R. Bacon, W.A.H. Godle & A. McFarquhar
Short-run variations in company profits	K.J. Coutts
Inflation accounting: retrospect and prospect	C. Kennedy
Statistical Appendix	M.J. Fetherston
Technical Manual on the CEPG Model (3rd ed.)	M.J. Fetherston & K.J. Coutts

Other papers (including some on which work was done in the period but which were published later or are still forthcoming):

Papers on CEPG methodology for London Business School conference, July 1978	T.F. Cripps & M.J. Fetherston
Simulations with the Cambridge Economic Policy Group Model in Economic Policy	M.J. Fetherston
Papers 1: Demand Management, (ed M.V. Posner), 1978	
	W I Fotherston &

"New Cambridge" Macroeconomics and Global Monetarism', Carnegie-Rochester Conference Series on Public Policy Vol. 9 (K. Brunner & A.H. Meltzer (eds.) ) 1978

M.J. Fetherston W.A.H. Godley

'Control of imports as a means to full employment: the UK's case', Cambridge Journal of Economics, September 1978	W.A.H. Godley & T.F. Cripps
'Britain's Chronic Recession - can anything be done?', The British Association, (Section F), Bath, September 1978	W.A.H. Godley
'The balance of payments as a constraint on growth in advanced capitalist economies 1954-73', DAE mimeo	T.F. Cripps & R.J. Tarling
'Growth of demand in advanced capitalist economies 1950-70', DAE mimeo	T.F. Cripps & R.J. Tarling
CEPG Ready Reckoner: 1977-80	K.J. Coutts
'The world crisis and problems of expansion', paper given to conference in Mexico, Sept. 1977	T.F. Cripps
'Fiscal and monetary policy in an open economy' paper for IFS conference on this subject, 1978	M.F. Fetherston W.A.H. Godley
'Review of 'Setting national priorities: the next ten years' (eds H. Owen & C. Schultze) (Brookings) in Political Science Quarterly, 1977	P.E. Atkinson
'Inflation in the United Kingdom', in Worldwide inflation: theory and recent experience, Brookings Institution, Washington, 1977	W.A.H. Godley
Industrial Pricing in the United Kingdom, CUP, 1978	K.J. Coutts, W.A.H. Godley & W.D. Nordhaus
'The Social Contract : post-war incomes policies and their inflationary impact' Cambridge Journal of Economics, Dec.1977	R.J. Tarling & S.F. Wilkinson
The Planning of Telecommunications in the United Kingdom, DAE, April 1978	T.F. Cripps & W.A.H. Godley
'Industrial policy and economic development : the experience of Northern Ireland and the Republic of Ireland', Cambridge Journal of Economics, March 1978	B.C. Moore, J. Rhodes & R.J. Tarling

'Trade Unions and the Economy', Federation News, General Federation of Trade Unions,

T.F. Cripps & S.F. Wilkinson

'Evaluating the effects of regional policy', in the Report on Methods of Measuring the Effects of Regional Policies, OECD

B.C. Moore & J. Rhodes

Regional and Industrial Policy in the Republic of Ireland', Cambridge Journal of Economics, 1978

B.C. Moore, J. Rhodes & R.J. Tarling

'The Economic Implications of Devolution', in The Economics of Devolution, (ed E. Nevin), British Association, Sept. 1978

B.C. Moore & J. Rhodes

'Year one of the ten year road to ruin?' W.A.H. Godley article for Vickers da Costa, June 1978

# Conférences & Seminars

National Institute of Economic & Social Research Conference on 'Demand Management' held Dec. 1977 'Simulations with the many many and the same and the sa Cambridge Economic Policy Group Model' Paper given by T.F. Cripps, M.J. Fetherston & W.A.H. Godley

National Institute conference on 'De-Industrialisation' Price Competitiveness and Performance of Manufacturing Industry', Comment by T.F. Cripps, July 1978

Carnegie-Rochester conference on Public Policy, November 1977. Paper by by W.A.H. Godley & M.J. Fetherston

London Business School conference on modelling, July 1978. Papers on CEPG methodology given by T.F. Cripps & M.J. Fetherston

Institute for Fiscal Studies conference on fiscal and monetary policy in an open economy. Paper by M.J. Fetherston & W.A.H. Godley, 1978

Conference in Bologna, Sept. 1978, on international, national & regional economic policy problems (with a group of Italian and French economists)

September 1978. M.J. Fetherston and R.J. Tarling acted as consultants to Mexican Economic group at Cide, Mexico City.

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#### OFFICIAL FOREIGN BORROWING

The aim of this project, being undertaken by P. Atkinson, is to set up a framework in which to analyse the question 'How much would the government of a country be wise to borrow in any year or series of years?' Work began on this research during 1975 and was separately funded during 1977 and 1978. The results of the study will be more suitable for publication as a book or as an Occasional Paper than as articles. Drafting is currently in the later stages and it is hoped to have a finished manuscript during the first half of 1979.

As the study has proceeded it has become clear that the results would be somewhat more analytical and less empirical than had originally been envisaged. The work has fallen naturally into three distinct sections. First, because governments presumably act on behalf of their subjects, the literature regarding optimal foreign borrowing from a national point of view is relevant. The strengths and weaknesses of this literature are discussed. Second, an approach to the problem is developed which is realistic. The emphasis on realism means that no strong results can be obtained, but the analysis is constructive. Third, case studies of countries whose governments engaged in substantial foreign borrowing are considered.

#### LABOUR MARKETS IN DECLINING INNER CITY AREAS

This project, which started in July 1977, is being carried out by Barry Moore and John Rhodes. The aim of the research is to find out quantitatively what has been happening to population and employment in all the major inner city areas of the UK; to assess the speed at which economic decline has taken place; to disentangle so far as possible the causes of this decline, whether arising from

Government policies, local authority policies or market forces; and to discuss the kinds of policy change which may be helpful in alleviating the problem.

Work has progressed on the formulation of labour market "balance sheets" for inner city areas, outer city areas and a group of smaller free standing cities as well as new towns. An examination is also being made of employment changes in the various industrial and service sectors in these groups of areas between 1951 and 1976.

# THE EFFECT OF THE ABOLITION OF WAGES COUNCILS

This is a three-year project financed by the Department of Employment, which started on 1 October 1976. The research staff involved are Frank Wilkinson and Roger Tarling (joint principal investigators), Christine Craig and Jill Rubery.

The object of the project is to determine the effect of the abolition of wages councils on wage movements, wage structures and collective bargaining in six industries. The work involves surveying firms in each industry by interview, and by postal questionnaire in the larger industries. General background information from published sources has been supplemented with interviews with the relevant employers' associations and trade unions.

During the first two years the study of three industries has been completed, together with the great majority of the fieldwork on the fourth. Work on the remaining two industries (baking and industrial and staff canteens) will be carried out during 1979.

The work has produced very interesting material on wage levels, wage movements and the development of collective bargaining, linked with changes in the structures of the industries concerned. Substantial reports on the jute and cutlery industries have been

submitted to the Department of Employment, and have been very well received. A report on the paper box industry will be finished by the end of 1978. The individual industry reports will be published in the Department of Employment's Research Paper series during 1979, and a final paper will draw together the results from the separate industries.

THE ECONOMICS OF INSTITUTIONALISED WAGE DETERMINATION

The project is concerned with:

- (i) a historical study of the factors other than wage increases which affect domestic prices terms of trade, fiscal policy, profits, productivity change and how these have influenced the growth of real disposable income from employment,
- (ii) the interaction between variation in the rate of growth of real disposable income from employment and trade union membership, the institutional form of wage bargaining and worker militancy,
- (iii) the influence of product and labour market forces, institutional and other factors on inter-industry variation in the rate of wage increases.

The research has been carried out by Roger Tarling and Frank Wilkinson and has so far led to four papers:

- (a) an article, 'The Social Contract', published in the Cambridge Journal of Economics,
- (b) an article, 'Industrial development and the evolution of industrial relations: the US and British steel industry compared', forthcoming,
- (c) an article on changes in wage differentials, with particular reference to the public sector,
- (d) a paper on the inter-industry wage structure.

Four seminars were given during the year, of which two were in Cambridge.

The purpose of the project is to assess the effects of the Temporary Employment Subsidy (TES) upon firms and the economy. The main approach to the research is by a questionnaire to a sample of firms which receive TES. Information on the use of the subsidy is obtained from the firms and they provide statistical data which are analysed and compared with aggregate data for industries. In addition, time series data for industries have been analysed to detect any effects of the subsidy.

The research is being undertaken by Mr B.M. Deakin and Mr C.F. Pratten.

#### EVALUATING INDUSTRIAL PERFORMANCE AND PROSPECTS

This project is directed by Mr V.H. Woodward and funded by the Department of Industry. Mr I.G. Begg worked on this project part-time until 31/1/78 and full-time from 1/2/79.

The objective of the research is to monitor and forecast the detailed development of UK manufacturing industry in an international context. Part of the analytical framework is provided by a 65-sector dynamic input-output model of the UK manufacturing sector, which is operational both at Cambridge and within the Department of Industry. The possibility of extending the data base to support comparative analysis of manufacturing industry for the nine major industrial countries was explored by Mr Woodward during sabbatical leave June-October 1978, with financial support from the National Economic Development Office.

# Publication

'The pattern of final demand and the sectorial composition of employment in the UK'by V.H. Woodward - in The Structural Determinants of Employment and Unemployment, Volume II, OECD, Paris 1978.

# Conference Papers

Outline of the Disaggregated Information System, February 1978 by V.H. Woodward - a paper presented to the Department of Industry and to the National Economic Development Office, March 1978.

Monitoring UK Industrial Strategy - with special reference to the engineering industry by V.H. Woodward - paper prepared for the Operational Research Society Conference, York, 3-6 October 1978.

British Industrial Strategy in an international context by V.H. Woodward - paper prepared for Second International Conference on Industrial Economics, Szekesfeherrar, Hungary, 5-8 September, 1978.

Multinational Companies, Trade Flows and Industrial Policy by I.G. Begg - paper prepared for European Association for Research in Industrial Economics Conference, Nuremberg, September 1978.

# Seminars

International aspects of UK industrial performance - V.H. Woodward, University of East Anglia, January 1978.

Manufacturing versus services - V.H. Woodward, Ashridge Management College, December 1977.

AN INTERNATIONAL COMPARISON OF THE DETERMINANTS
AND EFFECTS OF MERGERS

SON OF THE DETERMINANTS

MARCHALL

OF ECONO

Project members: A.D. Cosh (full-time), A. Hughes, A. Singh.

# 1. Introduction (1)

The work which we have carried out and which is described below is the only international comparative study ever attempted in this field. Research teams in the Netherlands, Belgium, France, Sweden, Germany and the United States have collaborated along with ourselves to test a common set of hypotheses about the causes and effects of mergers in the 1960s. The specific contribution of our project was to have been to analyse mergers in the UK in terms of this common set of hypotheses. Project members have, however, also contributed overview chapters to the final volume which contains the separate country reports. In view of the past research experience and expertise of our project members, and in view of the richness of the data which we have accumulated so far, our project also set out to consider both earlier and later time periods in the UK, as well as attempting extensive multivariate analysis in addition to the essentially univariate work required as an input to the international comparative work. This work is still in progress.

# Results presented and conferences attended during 1977-78

- (a) An analysis of mergers for the years 1966-8 was presented at the International Institute of Management, Berlin, in January 1978.
- (b) A seminar on mergers and economic efficiency was presented at the London School of Economics in March 1978.
- (c) An analysis of the international comparative aspects of the project work was undertaken at the merger workshop at the IIM, Berlin, in Summer 1978.

<sup>(1)</sup> This report should be read in conjunction with last year's report.

- (d) An analysis of the welfare and competition policy implications of the UK merger wave was presented at the 5th Annual Conference of the European Association for Research in Industrial Economics in Nuremberg in September 1978.
- (e) Seminar papers were presented at the University of Wales, Cardiff and at the Office of Fair Trading in London in the Michaelmas term, 1978.
- 3. Working Papers, Proposed and Actual Publication
- (i) Published
- A. Hughes, 'Competition Policy and Economic Performance in the UK'.

  A research Annex to Competition Policy (NEDO August 1978),

  pp. 17-101.
- (ii) Forthcoming in D.C. Mueller (ed), The Causes and Effects of Mergers: An International Comparative Study of 7 Nations.
- A. Cosh, A. Hughes and A. Singh 'The Causes and Effects of Mergers in the United Kingdom: An Empirical Analysis at the Microeconomic Level'.
- A. Hughes and A. Singh 'The International Merger Movement: the Empirical and Institutional Background'.
- A. Hughes and A. Singh 'The International Merger Movement: Policy Implications'.
- (iii) Conference Papers, etc.
- A. Hughes and A. Singh Takeovers, Economic Efficiency and a

  Disequilibrium Industrial Economy: The Uneasy Case for an

  Aggressive Antitrust in the UK (presented at the 5th EARIE

  Conference, Nuremberg, 1978).
- A. Cosh 'Anticipated Profitability of Mergers: An Analysis of the Characteristic of Acquired and Acquiring Firms, by J. Cable and J. Hillier: A Comment' (presented at the 5th EARIE Conference, Nuremberg, 1978).
- 4. Current Work in Progress, and Future Research

The project's contribution to the international comparative study is now virtually complete. (The final drafts of the overview chapters await only the revised report from one of the collaborating teams.) The project's contribution to the international study has been greater than at first anticipated and as a result our plan to extend the time period covered in UK analysis beyond the original aim of the UK project has been delayed. We are at present carrying out this work and wish to combine it with an investigation of a

number of dynamic issues at the firm level, and of the external effects of mergers on the economy as a whole. We consider that this is a necessary addition to our existing work, which has dealt essentially with static allocative efficiency at the firm level. We now wish to consider the relationship between mergers and internal investment in new plant and equipment, and between mergers and the rate of growth of efficiency at the firm level and also in aggregate. The analytical background to this work is set out in A. Hughes and A. Singh (Nuremberg, 1978).

#### COMPANY FINANCE AND PERFORMANCE

This project is a joint venture with Professor G. Whittington of Bristol, and was established in October 1977 to extend previous research based on company accounts which had been carried out at Cambridge, Edinburgh and Bristol. It aims to develop earlier studies of company finance and performance; to maintain and update the data bank of quoted companies' accounts created by the predecessor projects; and to co-ordinate work on companies' financial behaviour with the Cambridge Growth Project (CGP). This last part of the work involves estimating models of financial decisions for individual companies and integrating them with the CGP's large-scale model of the UK economy. It should then be possible, on the one hand, to study a wider range of influences on company behaviour than those presented in company accounts and, on the other, to trace the wider repercussions in other sectors of the economy of decisions by companies.

- G. Meeks worked full-time on the project until April 1978 and part-time subsequently, after he took up a post in the Economics Faculty at Cambridge.
- A.W. Goudie joined the project in September 1978 as a full-time member of the research staff. Dr. L.J. Slater works part-time on the project. Professor Sir Richard Stone is also associated with the project, as is Professor Whittington of Bristol.

This first year of this four-year project was devoted chiefly to the preparation of data.

## FULL EMPLOYMENT BALANCE IN THE BUDGET

Work on this project, undertaken by Professor R.R. Neild and Mr T.S. Ward, was completed during the year. A book presenting the results of the research and suggesting ways in which budgetary procedure in the UK might be improved was published by the Institute for Fiscal Studies and Heinemann in December 1978, under the title The Measurement and Reform of Budgetary Policy by T.S. Ward and R.R. Neild.

# PRICING, EMPLOYMENT AND WAGES IN SERVICES

Work on this project, financed by the SSRC, was begun towards the end of the academic year. The aims are to investigate the behaviour of margins, wages and employment in distribution and other services, to examine their interaction and to answer such questions as: how far changes in taxes on labour in services are passed forward or back; how far margins are sensitive to cyclical variations in demand; how labour market policies which raise wages in services affect employment; and how far reductions in the general level of employment of varying magnitudes depress relative wages and earnings in services and are associated with increased absorption of labour into the tertiary sector. Within this framework, the effects of the introduction of SET will be re-appraised and the effects of its removal explored.

The research is being carried out by Mr T.S. Ward under the direction of Professor R.R. Neild.

Work so far has been concentrated on explaining the marked discrepancy between the main data sources of employment in retail distribution. (The Census of Distribution shows a fall of around

80 thousand in the number of retail employees between 1966 and 1971 - the last Census year - whereas the Census of Employment shows a fall of some 250 thousand over the same period.) A statistical paper has been prepared reconciling the two enquiries so far as is possible, and the intention is that this will form the basis for discussion with the government departments concerned in order that the various ways of attempting to resolve the discrepancy which remains - and this essentially involves going back to the raw data - can be explained.

## Other Work

Mr T.S. Ward continued to act as specialist adviser to the General Sub-Committee of the House of Commons Expenditure Committee, and helped the Committee in their examination of the October 1977 budget measures, the January 1978 public expenditure White Paper and the proposed assimilation of cash limits and Supply Estimates.

#### Additional Publications, 1977-78

'Cash Limits and the Shortfall in Public Spending', The Times, 3 October 1977.

'The October Measures and Fiscal Policy', Expenditure Committee, Session 1977-78, HMSO, November 1977, HC 15.

'Public Expenditure Planning and Control in the United States: A Comparison with the British System', Expenditure Committee, Session 1977-78, HMSO, 1978, HC 196.

'The Government's Expenditure Plans to 1981-82: An Analysis of Cmnd. 7049', Second Report from the Expenditure Committee, Session 1977-78, HMSO, 1978, HC 257.

'Comments on the Treasury Memorandum: "Supply Estimates and Cash Limits" ', Fourteenth Report from the Expenditure Committee, Session 1977-78, HMSO, Aug. 1978, HC 661.

#### THE BEHAVIOUR OF PROFITS IN THE TRADE CYCLE

Work on this project is being carried out by Mr K.J. Coutts under the direction of Mr W.A.H. Godley.

The project developed from an insight, gained on the study of industrial pricing, that there was an analagous profits counterpart to the normal price hypothesis. The analytic framework which was developed to explain short-run variations in profits made explicit the relationship between pricing behaviour, the measurement of gross profits and the treatment of stocks. An article containing preliminary empirical results was published in the Economic Policy Review, No.4, March 1978.

Work has since been done on three main areas. A disaggregated analysis on lines similar to that of the aggregate framework has been done and will be updated using the latest available estimates in National Income and Expenditure 1967-77. Work at an aggregate level has been carried out to examine the effect on the long-run profit margin of changes in the burden of taxation and international competitiveness. It is intended, where feasible, to extend this work to selected industries.

A second area is concerned with testing a theory proposed by Adrian Wood, based on his theory of profit, that the increase in export profit margins caused by an effective devaluation will tend to be offset by a reduction in domestic profit margins. It is interesting to note that preliminary work at an aggregate level did not refute this proposition. It is intended to test Wood's theory by examining, for the selected industries used in the price study, whether the margin of the price of home sales to unit costs moved inversely with increased competitiveness.

The third area has been concerned with the ability of the company sector to maintain, under inflationary conditions, the adequate finance of its operations without curtailing the scale of this activity in real terms. The work involves the measurement of profit in a period of inflation and includes an analysis of alternative measures proposed in the debate on inflation accounting. It is intended to publish separately a short study on this area early in 1979.

#### SOCIOLOGY GROUP

#### SOCIAL AND INDUSTRIAL DETERMINANTS OF WORKERS' ATTITUDES

The aims and methods of this project, which began in October 1968, were described in earlier Reports. The project is being carried out by Dr R.M. Blackburn and Dr J.M. Mann, Reader in Sociology at the London School of Economics.

projects, on described on the 13th and emilies Recorder

A monograph on The Working Class in the Labour Market, to appear in Cambridge Studies in Sociology, is with the publisher and is due for publication early in 1979. This examines processes within a section of the labour market, how these processes are structured and the way in which the market is experienced by those who come to form a non-skilled proletariat.

Dr Mann gave a paper on 'The concept of skill' to a conference on deskilling organised by the Industrial Sociology Section of the British Sociological Association.

#### VARIATIONS IN TRADE UNION ORGANISATION AMONG WHITE-COLLAR WORKERS

The aims and origins of this project, started in October 1967, are described in earlier reports. It is being undertaken by Dr R.M. Blackburn, Dr K. Prandy and Mr A. Stewart.

Most of the work is completed and a draft of a monograph entitled Mobility and Militancy: The Work Experience and Unionism of White-Collar Employees, is being revised in readiness for publication.

# SOCIAL INEQUALITY

This project, undertaken by Dr R.M. Blackburn, Dr K. Prandy and Mr A. Stewart, integrates research started under two separate projects, as described in the 15th and earlier Reports.

Dr Blackburn gave a paper on 'Work Experience & Ideology' to the annual conference of the Society of Industrial Tutors.

Mr Stewart gave a paper on 'Action & Structure in the Writings of Max Weber' at the University of Edinburgh, one on 'Class Consciousness & Class Action: An Alternative View' at the University of Surrey, and a public lecture in Cambridge, in the series Science, Technology & Society, entitled 'Work and Alienation'.

The following articles by K. Prandy were accepted for publication during the year: 'Ethnic discrimination in employment and housing: evidence from the 1966 British Census', Ethnic and Racial Studies, January, 1979. 'Alienation and interests in the analysis of social cognitions', British Journal of Sociology, December 1979.

#### CAREER STRUCTURES

This project started in April 1976 and is undertaken by Mr A. Stewart. The aims and origins are described in the 16th Report.

It was completed during the year and the results are contained in three chapters of A. Stewart, K. Prandy and R.M. Blackburn, Social Stratification and Occupations. In these chapters a processual model of individual experience in processes of production and reproduction of occupational systems is developed, which demonstrates that such experience is much more coherent and predictable than has previously been recognised.

# REPRODUCTION OF SOCIAL INEQUALITY

This project commenced in May 1978. It is being carried out by Dr R.M. Blackburn, Dr K. Prandy and Mr A. Stewart, and is designed to extend the research of earlier projects, drawing on both the intellectual and data resources of the previous work.

It is concerned with the general area of social inequality and social change, seeking to move towards a more dynamic model of social stratification which takes account of processes of reproduction of societies.

#### CHILDHOOD SKIN DISEASES

This project began in 1976 and is being carried out by
Mr R.G. Jobling. The original field work has been completed,
but the research continues, with three areas receiving special
attention:

- (a) the introduction of new forms of therapy and their psycho-social implications;
- (b) the social organisation of dermatology;
- (c) the 'politics' of medicine, with special reference to dermatological problems;
- (d) self-help and mutual aid.

Mr Jobling has acted as consultant, and joint editor of Slide/ Tape Programmes for medical professional and patient education, produced by the Departments of Medical Illustration and Dermatology (Radcliffe Infirmary), Oxford.

A chapter on 'Nursing with and without professional nurses - the case of chronic skin disorder', by R. Jobling, appeared in R. Dingwall & J. Macintosh (eds) The Sociology of Nursing.

Mr Jobling gave a paper on 'Some problems of organised patient-hood' to the National Council of Social Services Conference, which will be included in a resultant book on Mutual Aid in Social & Health Care, by S. Hatch. The following papers by Mr Jobling were also accepted for publication: 'Self-help and skin disorder - associations of psoriasis sufferers in eight countries', in A. Katz & E. Bender (eds) The Strength of Us; 'Mutual aid and health', in D. Jones (ed) Public Participation in Community Work.

Mr Jobling has edited and contributed articles to the journal of the Psoriasis Association and provided reports for this organisation.

#### OTHER ACTIVITIES

# External

The group continued its association with Columbia University's cross-national project on engineers, directed by Professor A.Silver. Mr P. Whalley, conducting the British study, was Visiting Fellow with the group for a further year.

As in previous years, the group were hosts to the SSRC Social Stratification Seminar.

Mr A. Stewart acted as consultant to the 'Open Door' scheme run by the Management and Industrial Relations Committee of the SSRC.

Dr R.M. Blackburn continued to act as the local sociology representative for the SSRC Survey Archive, and attended the Archive conference at the University of Essex.

Members of the group met representatives of the SSRC Sociology & Social Administration Committee to discuss evidence they had submitted on the financing of research.

Dr R.M. Blackburn continued to act as external examiner for the B.Sc. in Sociology, Hatfield Polytechnic.

# University and Colleges

Members of staff served on University committees, including the Social & Political Sciences Management Committee.

During the year, members of the group gave lectures on 'Processes of Stratification in Industrial Society' for the Social & Political Sciences Committee, the Faculty of Economics & Politics and the Faculty of Archaeology & Anthropology; and they gave lectures for the Extra-mural Department. They also examined in Social & Political Sciences and Archaeology & Anthropology. Data from the group's research were used for teaching in Social & Political Sciences.

The research staff supervised a number of postgraduate students, and also served as Ph.D examiners.

All members of the group acted as Directors of Studies in Social & Political Sciences, and supervised students reading this subject, Economics & Politics, and Archaeology & Anthropology. They also provided one college tutor.

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# II PUBLICATIONS

## ECONOMIC POLICY REVIEW

The fourth issue of the Review, with the Cambridge Economic Policy Group's annual review of Britain's short-run economic prospects, was published in March 1978.

#### DAE MONOGRAPHS

This series contains investigations by members of the Department's staff and its associates, and is published by Cambridge University Press. The following title was added to it this year:

No.26 Industrial pricing in the United Kingdom, by K.J. Coutts, W.A.H. Godley and W.D. Nordhaus (published May 1978).

## DAE OCCASIONAL PAPERS

No new titles appeared in this series this year.

#### CAMBRIDGE STUDIES IN APPLIED ECONOMETRICS

This series, published for the Department by Chapman & Hall, provides an outlet for the results of the research undertaken by the Cambridge Growth Project. The following title appeared in it this year:

No. 3 Public policy and the corporation, by Mervyn A. King (published November 1977).

DAE PAPERS IN INDUSTRIAL RELATIONS AND LABOUR

No new titles were published in this series during the year under review.

#### TELECOMMUNICATIONS

The planning of telecommunications in the United Kingdom, by
Francis Cripps and Wynne Godley, was published by the Department
in April 1978. It is a detailed study of the subject, which
argues that an entirely new approach to planning is urgently
needed in the telecommunications sector, because of the wider
implications of the revolutionary technical change occurring
there.

#### 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.

During the year the organisation of the series was revised, and publication was transferred from Cambridge University Press to Macmillan.

Changes in editorial arrangements brought editorial responsibility entirely within the group. The editorial advisory committee was discontinued, and Dr K. Prandy replaced Mr J.H. Goldthorpe as joint editor with Dr R.M. Blackburn. During the year the following studies were published by CUP:

- D. Gallie, In Search of the New Working Class: Automation & Social Integration with the Capitalist Enterprise.
- R. Reiner, The Blue-Coated Worker.

The following were accepted for publication by Macmillan:

- R.M. Blackburn & M. Mann, The Working Class in the Labour Market.
- A. Stewart, K. Prandy & R.M. Blackburn, Social Stratification and Occupations.
- K. Prandy, A. Stewart & R.M. Blackburn, Mobility & Militancy.

#### 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 libraries and academic institutions. The following titles were added to it during the year:

- 9. Economic development in Egypt in the New High Dam era, by M. Abdel-Fadil, L'Egypte contemporaine, April 1974.
- 10. Some experiments in projecting intermediate demand, by T.S. Barker, from Allen & Gossling (eds), Estimating and projecting input-output coefficients, Input-Output Publishing Co., 1975.
- 11. An analysis of the updated 1963 input-output transactions table, by T.S. Barker, from Allen & Gosling (eds),

  Estimating and projecting input-output coefficients, InputOutput Publishing Co., 1975.
- 12. Optimum and market land rents in the CBD city, by D. Livesey, from Papageorgion (ed) Mathematical land use theory, Lexington, 1976.
- 13. Inflation and recession in the world economy, by N. Kaldor, Economic Journal, December 1976.
- 14. The money supply, wages and inflation, by T.F. Cripps, Cambridge Journal of Economics, March 1977.
- 15. What has become of employment policy?, by J. Robinson & S.F. Wilkinson, Cambridge Journal of Economics, March 1977.
- 16. Collective bargaining in the steel industry in the 1920s, by S.F. Wilkinson, from Briggs & Saville (eds), Essays in labour history, vol.3, Croom Helm, 1977.
- 17. The economic consequences of zero population growth, by W.B. Reddaway, Lloyds Bank Review, April 1977.
- 18. Inflation in the United Kingdom, by W. Godley, from Krause & Salant (eds), Worldwide inflation: theory and recent experience, Brookings, 1977.

- 19. Measuring the effect of public expenditure, by W.Godley & C. Taylor, from Posner (ed), Public expenditure: allocation between competing ends, Cambridge University Press, 1977.
- Public expenditure in Britain: the crisis of control, by
   M. Wright, Public Administration, Summer 1977.
- 21. The changing role of migrant workers in the advanced capitalist economies of Western Europe, by S.H. Paine, from Griffiths (ed), Government, business and labour in European Capitalism, Europotentials Press, 1977.
- 22. The slow recovery of the world economy, by W.B. Reddaway, Australian Economic Review, third quarter, 1977.
- 23. OPEC surpluses, the world recession and the UK economy, by C.H. Feinstein and W.B. Reddaway, Midland Bank Review, Spring 1978.
- 24. The Social Contract: post-war incomes policies and their inflationary impact, by R.J. Tarling and S.F. Wilkinson, Cambridge Journal of Economics, December 1977.
- 25. UK industry and the world economy: a case of deindustrialisation?, by A. Singh, Cambridge Journal of Economics, June 1977.
- 26. Towards national job evaluation? Trends and attitudes in Britain and in the Netherlands, by C. Craig, Industrial Relations Journal, Spring 1977.
- 27. The economic and exchequer implications of British regional economic policy, by B. Moore and J. Rhodes, from Vaizey (ed), Economic Sovereignty and Regional Policy, Gill & Macmillan, 1975.

DAE SOCIOLOGY REPRINTS

No new titles were added to the series this year.

# III OTHER ACTIVITIES

#### DAE LIBRARY

During the period October 1977 to September 1978 the Department has received 138 periodicals; 16 of these were in exchange for the Department's reprint series and 45 were gifts, the remainder being purchased. The library has acquired 70 books, 687 pamphlets and reprints, and 374 British government publications.

#### COMPUTING UNIT

The unit, under the direction of Dr L.J. Slater, continued to provide services for almost all the projects in the Department, the Economic Policy Group and the Cambridge Growth Project being the heaviest users. There was an increasing use of on-line facilities operated directly by research staff. Advice and help were also given to members of the Faculty of Economics & Politics, to research students, and to other institutions and individuals in the University.

#### Activities

Dr Slater attended two conferences:

- 1. the British Association for the Advancement of Science at Bath in September 1978, and she visited the South Western Region Network Headquarters;
- the SSRC conference at the University of Essex in July 1978 organised by the SSRC Data Archive of which she is the local representative.

She is at present completing a book, in collaboration with Dr M.H. Pesaran, about auto-regressive processes, which will be published in 1979.

#### SEMINARS

Research staff members of the DAE gave a number of seminars during the year at Cambridge and elsewhere. The papers read included the following:

K.J. Coutts

\*Industrial pricing in the United Kingdom\*
(with W.A.H. Godley, at H.M. Treasury,
London).

W.A.H. Godley 'Industrial pricing in the United Kingdom' (with K.J. Coutts, at H.M. Treasury, London).

P.E. Atkinson 'Independent monetary policy and the monetary approach to the balance of payments: The case of the United Kingdom,

(with Adrian Blundell-Wignall, at Churchill College, Cambridge, the London School of Economics and at Bocconi University, Milan).

L.A. Winters 'Lags in UK visible export functions' (at the Universities of Warwick and Surrey).

S.F. Wilkinson 'Incomes policy and inflation' (at the North London Polytechnic).

T.S. Barker 'Industrial submodels in a multisectoral dynamic model' (at the Cambridge Growth Project Seminar, Cambridge and SEPAFIN, Mexico).

'A multisectoral dynamic model of the UK economy'
(at the Operations Research Study Group, London, and at the Energy Research Group, Cambridge).

A. Lawson

'A permanent income hypothesis, and consumer spending'

(at the Cambridge Growth Project Seminar, Cambridge).

'An adaptive expectations mechanism which is consistent with the permanent income hypothesis and with the theory of rational expectations' (at the SSRC sponsored Economic Theory Study Group's conference on Rational Expectations, Birkbeck College, London).

L. Makowski

'An economic theory of friendship exchange' (at Churchill College, Cambridge).

M.J. Fetherston

'New Cambridge macroeconomics and global monetarism' (at Carnegie-Mellon University, Pittsburgh, USA).

B.C. Moore

'The finance of local authority expenditure' (at the Department of the Environment, London).

'Productivity changes in the regions of the United Kingdom' (at the Centre for Environmental Studies, London).

J. Rhodes

'Regional policy'
(at H.M. Treasury, London).

'Regional and industrial policy in the Republic of Ireland'. (at the Regional Studies Association, Bristol).

J.A. Beath

'Shifting of the corporate income tax'
(at the Universities of Dundee, St. Andrews,
Edinburgh, and at the Economic Theory Seminar
at Churchill College, Cambridge).

'The theory of the firm under uncertainty' (at the Cambridge Growth Project Seminar, Cambridge).

V.H. Woodward

'Industrial forecasts: the prospects to 1983' (at the Department of Industry and at NEDO, London).

'Industrial policy: goods versus services' (at Ashridge Management College, Berkhamsted).

'Britain's industrial performance in an international context' (at the University of East Anglia).

D.A. Vines

'Simulations with MDM3 using the price-wage link'

'The accumulation of money and wealth in an open economy macro-economic model' (both given at a Cambridge Growth Project Seminar, Cambridge).

'Wage inflation in the UK, 1954-75: an econometric investigation' (at the University of Warwick).

A.W.A. Peterson

'A recursive model of employment and hours worked'

(at the University of Warwick)

'Capîtal goods and technical change: some theoretical problems' (at the University of Umea, Sweden).

L.J. Slater

'Computing and society'
(given for the Open University)

'Computerising college roll records' and 'Computerising genealogical records' (both given at Lucy Cavendish College, Cambridge).

The following are the principal new or

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UNIVERSITY RELATIONSHIPS

Several members of the Department's research staff served on University committees during the year, including the Faculty Board of Economics and Politics and the Social Sciences Committee.

TEACHING FOR THE UNIVERSITY AND FOR COLLEGES

During the year members of the research staff gave 68 hours of lectures for the Tripos in various fields, including applied economics, labour economics and current economic policy issues. They also supervised postgraduate students and gave seminars for them.

Most members also undertook for Colleges the supervision of undergraduates. Nine of the members were Directors of Studies in Economics, and three in Social and Political Sciences.

#### IV FINANCE

During the financial year (1 August 1977 to 31 July 1978), the Department's annual expenditure was £309,018, compared with £252,464 in 1976. 85% of the expenditure was on stipends and wages.

The University grant rose from £111,601 in 1976-77 to £121,838 in 1977-78, an increase of £10,237. Expenditure went up by £56,554.

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	165,282
Department of Employment	38,972
H.M. Treasury, DOI and CSO	52,500
Esmée Fairbairn Charitable Trust	18,600
	£275,354

# RESEARCH STAFF

Director

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

#### SENIOR RESEARCH OFFICERS

- T.S. Barker, MA, PhD (Cantab), MA (Edinburgh), Downing College
- R.M. Blackburn, MA(Cantab), PhD(Liverpool), Fellow of Clare College
- T.F. Cripps, BA(Cantab), Churchill College
- B.C. Moore, MA(Cantab), MSc(Econ) (London)
- K. Prandy, MA(Cantab), PhD(Liverpool), BSc(Econ)(London), 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 Catherine's College
- S.F. Wilkinson, MA(Cantab), Fellow of Girton College
- V.H. Woodward, MA(Cantab), BA(Nottingham), St Catherine's College

# RESEARCH OFFICERS

- P.E. Atkinson, BA(Cantab), Trinity College
- J.A. Beath, MA(St Andrews), M.Phil(London), MA(Penn), St John's College
- V.K. Borooah, MA(Bombay), MA(Southampton), PhD(Southampton)
- K.J. Coutts, MA(Cantab), Fellow of Selwyn College
- Mrs J.C. Craig, MA(Cantab), BSc(London)
- G. Meeks, BA(Cantab), Queens' College
- A.W.A. Peterson, MA(Cantab), MA(Essex), Fellow of Christ's College
- T.S. Ward, MA(Cantab), MA(Econ) (Manchester), BA(Wales), Fellow of Fitzwilliam College
- L.A. Winters, MA(Cantab), BSc(Bristol), Fellow of Fitzwilliam College
- R. Witcomb, MA(Cantab), B.Phil(Oxon), Fellow of Gonville & Caius College

#### JUNIOR RESEARCH OFFICERS

- I.G. Begg, BA(Strathclyde), Darwin College
- A. Cosh, BA(Cantab), Fellow of Queens' College
- M.J. Fetherston, MA(Cantab), Fellow of Jesus College
- A. Lawson, BSc(London), MSc(London), King's College

# PUBLICATIONS SECRETARY

Ms J.M. Bradley, MA(Oxon)

# RESEARCH ASSOCIATES

Professor the Lord Kaldor

Dr D. Livesey

Ms J. Rubery

Professor J.R.N. Stone

## RESEARCH ASSISTANTS

C.J. Bloch G. Ryder

Miss L. Finn Mrs E.L. Scott

I. McMaster A.G. Shelton

M. Mackie D.M.F. Taylor

Miss J.P. Naylor F. Van Der Ploeg

Miss M.P. Quinlan D. Vines

M. Ramsay A. Ward

D. White

VISITING SCHOLARS, OCTOBER 1977 - SEPTEMBER 1978

Mrs V.K. Borooah, University of Southampton

Professor L. Broom, Australian National University

Professor G. Brown, University of Washington, Seattle, USA

Mr A.G. Martins, Grupo de Estudos Basicos de Economia Industrial, Portugal

Dr D.W. Rawson, Australian National University

Dr J. Torres, UNCTAD, Lima, Peru

Mr R.P. Whalley, Columbia University, USA

# ASSISTANT STAFF, OCTOBER 1977 - SEPTEMBER 1978

Mrs M.J. Barnett

Mrs J.M. Leverett

Mrs J.S. Barringer

Miss A. Mason

E.D. Bougourd

Miss S. Metcalfe

Ms M.V. Clark

Mrs S. Moore

Mrs R. Coe

Mrs O.E. Peppercorn

Miss S.L. Dawson

Miss S.D. Seal

Miss D.M. Day

Ms S. Sibson-Turnbull

Mrs M. Edwards

Mrs G.E. Simons

Ms T.C. Gurner

R.M. Smith

Miss C.A. Hudson

Mrs L. Symonds

Mrs K.M. Wilson

ADDITIONAL STAFF

Mrs S.D. French

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Anstralian Sational University

Margades Basicos de Economia

W. Hawton, Mustralian Maricoal University

Mr R.P. Whatley, Columbia University, DEA