

UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF
APPLIED ECONOMICS

SIXTEENTH REPORT

ACTIVITIES IN THE PERIOD

OCTOBER 1975 TO SEPTEMBER 1976

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University of Cambridge
DEPARTMENT OF APPLIED ECONOMICS

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SIXTEENTH REPORT OF THE DEPARTMENT OF APPLIED ECONOMICS

(covering the year October 1975 to September 1976)

I. RESEARCH ACTIVITIES

This section outlines the work done in 1975-76 on the research projects being conducted, and lists the new ones which started in the current academic year.

ECONOMICS AND ECONOMIC HISTORY

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 have been published in the series A Programme for Growth (London, Chapman and Hall) in which twelve volumes have appeared. This series has now been replaced by a new series Cambridge Studies in Applied Econometrics, in which two books have appeared: Models and Projections of Demand in Post-War Britain by Angus Deaton (1975) and Economic Structure and Policy by members of the project, edited by Terence Barker (1976).

The other research staff working on the project during the period covered by this report were as follows: Mr. J.A. Beath, Dr. A.S. Deaton,

Mr. M.A. King, Mr. A.W.A. Peterson, Mr. L.A. Winters and Mr. V.H. Woodward. Visitors to the project during the year included Dr. Tom Schweitzer, Economic Council of Canada. Dr. D.A. Livesey, Dr. G. Meeks and Mr. D.A. Vines were associated with the work on the project.

The main research of the project is the investigation and analysis of the present structure and future prospects of the British economy. The approach of the project has been to build a computable, disaggregated model of the economy and use it to demonstrate possibilities for the future. The model provides and maintains coherence and consistency between different proposals and policies. During the year a dynamic version of the model was estimated for 40 industries, with 1970 as the price base year and adopting the 1968 SIC. This model has now been developed to the point of producing projections of the economy 1973-1985.

Besides the work on the dynamic model, research has been concentrated in five areas: industrial pricing, consumers' expenditure behaviour, financial behaviour in the company sector, investment and employment functions and the determinants of volumes and prices in foreign trade. The work on company behaviour by Mervyn King has been written up in a book due to be published as Public Policy and the Corporation, Number 3 in Cambridge Studies in Applied Econometrics.

Papers presented at conferences by members of the project were as follows:

Institute of Measurement and Control Symposium on the Dynamics of Economic Systems, London, April 1976.

D.A. Livesey 'Intervention in the market-place: its impact on economic stability'

Conference on the Measurement of Capital, Southampton, July 1976.

A.W.A. Peterson 'Factor demand functions'

European Meeting of the Econometric Society, Helsinki, August 1976.

J. Beath 'Factor shares and the shifting of the corporate income tax'

A.S. Deaton 'Testing non-nested hypotheses: the general case'

M.A. King 'Econometric estimates of dynamic differential tax incidence in the UK'

International Economic Association Conference on Econometric Contributions to Public Policy, Urbino, September, 1976.

T.S. Barker 'Alternative strategies for economic planning'

International Economics Study Group, First Annual Conference, Brighton, September 1976.

L. A. Winters 'A model of the UK visible export sector'

British Association for the Advancement of Science Annual Conference, Lancaster, September 1976.

V.H. Woodward 'Government policy and the structure of the economy'

German Federal Research Society Roundtable on Possibilities and Limits of Scientific Methods in Technical and Economic Prognosis, Bonn, December 1975.

D.A. Livesey 'The role of models in macroeconomic policy formulation' (nominated to attend by the S.R.C.)

Conference on Forecasting the Public Sector, Chartered Institute of Public Finance and Accounting, London, February, 1976.

A.W.A. Peterson 'The Cambridge Growth Model and projections of the British economy to 1980'

Working Seminar on Global Opportunities and Constraints for Regional Development, Harvard University, Cambridge, Mass., February 1976.

J.R.N. Stone 'Major accounting problems for a world model'

Third International Conference of Applied Econometrics, Brussels, February, 1976.

T.S. Barker 'A priori constraints and the analysis of British imports 1955-1972'

The following books and articles by members of the project were published during the year.

- Barker, T.S. (editor and author of 5 chapters) Economic Structure and Policy, Cambridge Studies in Applied Econometrics, Number 2, Chapman and Hall, London, 1976.
Chapter 1 Models, projections and policies
Chapter 2 An overview of the model
Chapter 7 Imports
Chapter 12 (with V.H. Woodward) The British economy in 1980: a standard view
Chapter 16 Alternative economic policies
- Barker, T.S. Projecting alternative structures of the British economy, pp. 3-25 in K. Polenske and J. Skolka (eds.), Advances in Input-Output Analysis, Ballinger, Cambridge, Mass., 1976.
- Beath, J.A. Prices and profits, Chapter 9 in T.S. Barker (ed.) Economic Structure and Policy, Chapman and Hall, London, 1976.
- Deaton, A.S. Long-term projections of consumer demand in the United Kingdom, pp. 368-375 in Khachaturov T.S. (ed.), Methods of Long-Term Planning and Forecasting, Macmillan for the International Economic Association, 1976.
- Deaton, A.S. A simple non-additive model of demand, in L. Solari and J-N du Pasquier (eds.), Consommation Privée et Elargie, North-Holland for ASEPELT, 1976.
- Deaton, A.S. Personal consumption, Chapter 4 in T.S. Barker (ed.), Economic Structure and Policy, Chapman and Hall, London, 1976.
- King, M.A. Indexing for Inflation (Edited with T. Liesner), Heinemann, London, 1975.
- King, M.A. Company profits, dividends and retentions; Alternative tax systems and their incidence; Chapters 11 and 14 in T.S. Barker (ed.), Economic Structure and Policy, Chapman and Hall, London, 1976.
- Livesey, D.A. A minimal realisation of the Leontief dynamic input-output model, pp. 527-541 in K. Polenske and J. Skolka (eds.), Advances in Input-Output Analysis, Ballinger, Cambridge, Mass. 1976.
- Livesey, D.A. Solving the model, Chapter 3 in T.S. Barker (ed.), Economic Structure and Policy, Chapman and Hall, London, 1976.

Meeks, G. Giant companies in the United Kingdom, 1948-69, Economic Journal (with G. Whittington), 1975. Also published in shortened form in Italian in Mercurio, 1976.

Meeks, G. The Financing of Quoted Companies in the United Kingdom, Royal Commission on the Distribution of Income and Wealth, H.M.S.O., London, 1976.

Peterson, A.W.A. Investment; Employment; Chapters 5 and 8 in T.S. Barker (ed.), Economic Structure and Policy, Chapman and Hall, London, 1976.

Stone, J.R.N. Social statistics and social policy. To be published in Bulletin de l'Institut International de Statistique, vol. XLVI, 1975. Reproduced in Statistical Policy in Less Developed Countries, IDS Communication 114, 1975. French version: Economie et Statistique, no.75, 1976, pp.21-6. Hungarian translation: Különlenyomat a Demographia, 4, Demographic Institute of the Central Statistical Office of Hungary, 1975.

Stone, J.R.N. The expanding frontiers of input-output analysis. To be published in Bulletin de l'Institut International de Statistique, vol. XLVI, 1975.

Winters, L.A. Exports, Chapter 6 in T.S. Barker (ed.), Economic Structure and Policy, Chapman and Hall, London, 1976.

Woodward, V.H. No cause for optimism over imports, The Times, 23.6.76.

Woodward, V.H. How North Sea revenues can fuel an industrial revival, The Times, 4.10.76.

Woodward, V.H. Incomes and expenditures; The British economy in 1980: a standard view (with T.S. Barker); Alternative economic environments; Budgetary policy, public expenditure and the balance of payments; Chapters 10, 12, 13 and 15 in T.S. Barker (ed.), Economic Structure and Policy, Chapman and Hall, London, 1976.

FULL EMPLOYMENT BALANCE IN THE BUDGET.

Work on this project is being carried out by Professor R.R. Neild and Mr. T.S. Ward.

The central aim is to devise methods of estimating what the public sector financial balance would be if the economy were at full employment, and thereby to explore the usefulness of the concept as a measure of fiscal stance and as a guide to policy. An account of the preliminary work was given in the Fifteenth Report of DAE Activities.

During 1975-76, the main effort was devoted to incorporating the behavioural characteristics of the prevailing fiscal system into the CEPG medium-term macro-economic model. Details of the equations formulated for this purpose were published in M.J. Fetherston, Technical Manual of the CEPG Model, DAE, (mimeo), April 1976, pp.29-36.

Estimates of the full-employment budget balance for 1975 and for the years 1976 to 1980 derived from simulations of the CEPG model were published in T.S. Ward, 'The Public Sector Financial Balance', Economic Policy Review, No.2, DAE, March 1976, Chapter 7.

Estimates of the full-employment budget balance for past years, again based on the CEPG model, were presented in R. Neild and T. Ward, The Budgetary Situation: An Appraisal, which was made available in mimeo form at cost price in July 1976. A shortened version of this paper was published in The Times, 12 July 1976; demand for the full paper was surprisingly high and some 500 copies were distributed in a short space of time. In addition to full-employment budget estimates, the paper also examined changes in the structure of public expenditure and receipts over the post-war period, paying particular attention to the years 1964 to 1976, and compared the level and growth of taxation and government spending in the UK with other major OECD countries.

The paper drew attention, among other things, to the abrupt changes in fiscal stance made over the period 1967 to 1973; to the tightening in the budget that had occurred since 1974 (despite the substantial increase in the actual budget deficit); to the significant increase in the burden of personal income tax from 1974 onwards; to the almost continuous decline in the importance of indirect taxes; and to the fact that neither public expenditure nor taxation is high in the UK as compared with other Western European countries.

A more detailed and more extensive study will be ready for publication sometime towards the end of 1977. In addition to the topics mentioned above, this will include an analysis of the responsiveness of public sector receipts and certain items of expenditure to the growth of real income, the rate of inflation and variations in economic activity. It will also contain a critique of the present budgetary procedure in the UK and will suggest, drawing on the practice of West Germany, The Netherlands and the United States, how the procedure might be improved by adopting a full-employment budget approach.

EFFECTS OF ECONOMIC POLICY

Work on this related group of projects, which was again mainly financed by the SSRC, continued throughout 1975-76 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.

The general objective has been to develop a system of information which can be used to simulate the medium-term developments of the UK economy on alternative assumptions about macro-economic policy strategies.

Within a period of six months from September 1975 the computer model used by CEPG was completely rewritten from scratch. All members of the

group were involved in the specification and estimation of the model, which incorporates explicit analysis of the distribution of income, the "New Cambridge" relationship between private income and expenditure, the "Normal Price Hypothesis" of company behaviour, as well as fully-specified North Sea accounts. Estimation, analysis and solution of the model were carried out using computer programs written during the period by T.F. Cripps and M.J. Fetherston, and the new model was used to provide the projections contained in Economic Policy Review, No.2, March, 1976.

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 should be firmly grounded.

In addition to their on-going work for the Economic Policy Review, Barry Moore and John Rhodes continued to study several aspects of the impact of economic policies on regions and local areas. Firstly a short study was commissioned by the Layfield Committee to develop a methodology for distributing the needs element of the rate support grant as a practical alternative to the current use of regression analysis. The 'standard expenditure' approach was presented and its impact on individual local authorities was compared with the results of the existing distributional procedures.

A monograph on the impact of UK regional policy had been drafted in the previous year: work on this continued with earlier research results updated and incorporated. A study of the impact of industrial and regional policy in the Republic of Ireland was also started, which will highlight the role of multinational firms in regional development and allow a general methodology for evaluating regional policies to be

developed and adapted to macro-economic conditions, increasingly prevalent in the UK, of high unemployment in all regions. The work on evaluating the costs and benefits of regional policy was further developed in a paper presented to a conference of European specialists in this field. This is being published by OECD.

BIBLIOGRAPHY

Economic Policy Review, No.2, March 1976, containing the following:

The strategic problems of economic policy	
Wage bargaining and the inflation process	K.J. Coutts R.J. Tarling S.F. Wilkinson
Costs and prices 1974-1976	K.J. Coutts R.J. Tarling S.F. Wilkinson
The relative decline of the UK manufacturing sector	B.C. Moore J. Rhodes
The external financial position	P.E. Atkinson
What is left of 'New Cambridge'?	T.F. Cripps M.J. Fetherston W.A.H. Godley
The public sector financial balance	T.S. Ward
Appendix: Public sector debt interest	J. Rhodes
The measurement and control of public expenditure	W.A.H. Godley
Appendix A: Past data and projections for 1976-1980	
Appendix B: CEPG accounts and model	

Technical Manual on the CEPG Model M.J. Fetherston

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

'Wage differentials and incomes policy: an interindustry study', DAE mimeo	R.J. Tarling S.F. Wilkinson
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'Wage differentials and incomes policy: an interindustry study', DAE mimeo	R.J. Tarling S.F. Wilkinson
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'The labour force', DAE mimeo	R.J. Tarling
'Some thoughts on adjustment processes in the labour market' DAE mimeo	R.J. Tarling
'Collective bargaining in the iron and steel industry during the interwar years', in <u>Essays in Labour History</u> , (published 1977)	S.F. Wilkinson
'What has become of employment policy' <u>Cambridge Journal of Economics</u> (published 1977)	J.V. Robinson S.F. Wilkinson
'The relative needs of local authorities' Appendix 7 of the Layfield Committee of Inquiry Report into Local Government Finance, H.M.S.O.	B.C. Moore J. Rhodes
'A quantitative analysis of the effects of the regional employment premium and other regional policy instruments' in the <u>Economics of Industrial Subsidies in the UK</u> , ed. A. Whiting, H.M.S.O., Jan. 1976	B.C. Moore J. Rhodes
'Regional Economic Policy and the Movement of Manufacturing Firms to Development Areas', <u>Economica</u> , Feb. 1976	B.C. Moore J. Rhodes
'A formal analysis of the Cambridge Economic Policy Group Model', <u>Economica</u> (published Nov. 1976)	T.F. Cripps W.A.H. Godley
'Local Government Finance and its Reform', a critique of the Layfield Committee's Report. (published Oct. 1976) DAE	T.F. Cripps W.A.H. Godley
'Inflation in the United Kingdom' (published 1977 by the Brookings Institution)	W.A.H. Godley
'Estimation of simultaneous relationships : A UK private expenditure function' DAE mimeo, Sept. 1976	M.J. Fetherston
'Has public expenditure been "out of control", article for Vickers da Costa in <u>The British Economy</u> , Dec. 1975	W.A.H. Godley

Evidence given to the House of Commons Expenditure Committee, November 6 1975, on Public Expenditure	W.A.H. Godley

Newspaper articles:	
'Profits, stock appreciation and the Sandilands Report' <u>The Times</u> , Oct. 1 1975	T.F. Cripps W.A.H. Godley
'The case for import controls', <u>The Times</u> , March 1976	W.A.H. Godley
'The Budget deficit in perspective', <u>The Times</u> , July 12 1976	Professor R.R. Neild T.S. Ward

SOME ECONOMIC AND SOCIAL IMPLICATIONS OF IMMIGRATION TO BRITAIN

This project is being undertaken by Mr. B.M. Deakin and Dr. K. Prandy. Its aims and earlier development have been described in previous Reports.

During the year substantial progress was made on the economics side of the project. Analyses were carried out on the extensive range of data assembled in the course of the previous year, and the process of writing up the results was begun.

Discussions were held in Cambridge with members of the Unit for Man-power Studies, Department of Employment of H.M. Government, about the early results of our work on the economics side. Subsequently some of these results were published in the Unit's report on The Role of Immigrants in the Labour Market, Department of Employment, 1977. The chief results are the attributed analytical work set out in Tables E 1, G 5 and G 6, and textual material at p.25 paragraph E 3, and p.186 paragraph 11.

It is expected that material for a publication under the title 'Immigration to Britain: Some Demographic and Economic Aspects' will be ready in 1977.

On the sociology side extensive analysis of data from the 1966 and 1971 Censuses has been undertaken. On the basis of this two papers have been prepared, which will be submitted for publication shortly.

One paper examines the extent to which inequalities between immigrants and the native population can be explained in terms of normal processes of social inequality and how far they are due to discrimination. This is done with respect to socio-economic attainment and housing quality. A scale of ethnic distance is developed, indicating which groups are more discriminated against.

The second is concerned with residential segregation between the native born and five immigrant groups. Comparing several English cities revealed certain persistent patterns. Such factors as socio-economic position and access to local authority housing, but above all ethnic distance, determine location in a social distance space.

EXTENSION AND DEVELOPMENT OF THE SALTER/REDDAWAY ANALYSES OF BRITISH INDUSTRIES

Work was started on this project by Mr. B.M. Deakin and Mr. E.D. Bougourd in August 1976.

The aim of the research is to study the performance of selected British goods industries over recent years. Particular attention is being given to Salter's theories of the relationships between movements in output, employment, productivity, unit costs and prices, with the aim of testing these theories against recent British economic performance and under the changed economic conditions of the 1960s, particularly with regard to labour input. The coverage of manufacturing industry is being extended considerably from Salter's original 28 industries.

A STUDY OF THE PERFORMANCE OF WEST GERMAN, SWEDISH AND UK COMPANIES.

A report on a study of the performance of Swedish and UK companies was published as a DAE Occasional Paper in 1976. Comparisons of the performance of the UK and West German operations of some international companies and of independent West German and UK companies were prepared. A report on these comparisons was submitted to the NEDO, early in 1977.

The research was undertaken by Mr. C.F. Pratten.

INTENSIVE GROWTH IN THE USSR

This project was completed during the year. Publications resulting from the project include:

Michael Ellman, Did the agricultural surplus provide the resources for the increase in investment in the USSR during the First Five Year Plan? Economic Journal, December, 1975.

Michael Ellman, L'accumulazione di capitale nell'URSS, 1928-32, Mercurio, vol. 19, no.6, June 1976.

Michael Ellman, Seven theses on Kosyginism, De Economist, 1977, No.1.

Michael Ellman, On a mistake of Preobrazhensky and Stalin, forthcoming.

Some of the material collected during work on this project is incorporated in the forthcoming book:

Michael Ellman, A Rational Mode of Production? Planning under state socialism (Cambridge University Press, 1978).

Dr. Ellman was on leave for 1976. He spent the leave as Reader in Economics at the University of Amsterdam.

CAPITAL ACCUMULATION

The project was designed to complete work on the preparation of a set of estimates of capital accumulation in the period 1760-1860. The series have been completed and include estimates for each decade from 1761-70 to 1851-60 at current and constant prices for gross domestic fixed capital formation, stockbuilding and net overseas investment; and estimates of the corresponding stocks of assets at constant prices at the four dates: 1760, 1800, 1830 and 1860.

A paper describing these estimates and commenting on the results in relation to the growth of other inputs, output and productivity will be published in 1977 as a Chapter in the Cambridge Economic History of Europe, Volume VII, ed. by Professors P. Mathias and M.M. Postan. Dr. Feinstein is also writing a chapter on capital formation during the Industrial Revolution for a textbook on UK economic history sponsored by the SSRC and edited by Professors R. Floud and D. McCloskey.

A paper on this work was presented at the 25th Conference of the Economic History Society in April 1976 and Dr. Feinstein also gave seminars at Sheffield and Leeds.

The work was then extended to cover the period 1860-1920 and Dr. Feinstein was assisted in this by Mr. N.D. Cumming. This stage of the work will continue during the next year and will, hopefully, be completed by the end of 1977.

INDUSTRIAL RELATIONS AND SOCIOLOGY

HUMAN PROSPECTS OF TROPICAL MINING AREAS

The origins of this project, which was supported by the Overseas Development Ministry and supervised by Professor H.A. Turner, were stated in the 13th and 14th Reports and the progress of statistical and field studies by Mr. Philip Daniel noted in the 15th Report.

Field studies were made on the Zambian Copperbelt, in the Tanzanian diamond mining area, in mining development on Bougainville Island, Papua New Guinea, and in the Malaysian tin mining industry.

A draft with a view to publication has been prepared which Professor Turner (at present Visiting Professor and Acting Head in the new Industrial Relations Department of the University of Sydney) and Mr. Daniel, currently a planning adviser to the Government of Papua New Guinea, hope to meet to finalise during 1977.

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, Senior Lecturer in Sociology at the University of Essex.

A monograph on The Market Situation of the Non-skilled Working Class is nearing completion. 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. In addition work was started on two papers.

Dr. Mann gave a paper on Orientations and the Labour Market to the SSRC Social Stratification Seminar.

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 final publication, a monograph provisionally entitled Mobility and Militancy: The Work Experience and Unionism of White-Collar Employees, is at an advanced stage of preparation.

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. Mr. I. Birnbaum, a research student, worked in association with the team during the year. His paper on 'Greater Indeterminism in Causal Analysis' was accepted for publication in Quantity and Quality.

CAREER STRUCTURES

This project started in April 1976 and is undertaken by Mr. A. Stewart. It draws on data, gathered in three other projects carried out by members of the group, concerning work histories, age, education, income and other social characteristics of men in a wide range of occupations.

The aim is to investigate the relatively stable career patterns, which, contrary to most published accounts, may be identified at all levels when adequate account is taken of the factors involved.

CHILDHOOD SKIN DISEASES

The interview programme is now almost completed and preliminary analysis of the data has begun. A secondary interview programme is planned for late summer 1977.

II PUBLICATIONS

ECONOMIC POLICY REVIEW

The second issue of the Review was produced in March 1976. It contains the annual review of Britain's short-run economic prospects by the members of the Cambridge Economic Policy Group.

DAE MONOGRAPHS

This series contains reports of investigations conducted by members of the Department's staff and others working in collaboration with the Department. It is published by Cambridge University Press. The following title was published during the year:

Paul Stoneman: Technological Diffusion and the Computer Revolution, (Monograph No.25, published January 1976).

DAE OCCASIONAL PAPERS

This series, also published by Cambridge University Press, is designed for the rapid publication of research results. The following titles appeared during the period covered by this Report:

No. 45 Development, Income Distribution and Social Change in Rural Egypt, by Mahmoud Abdel-Fadil (published December 1975)

No. 48 Domestic Monetary Management in Britain 1919-1938, by Susan Howson (published November 1975)

No. 49 The State of Economic Development: Peru since 1968, by E.V.K. Fitzgerald (published February 1976)

No. 50 Labour Productivity Differentials within International Companies, by C.F. Pratten (published August 1976)

Forthcoming titles include:

No. 46 GEM, a General Econometric Matrix Program, by Lucy Slater (published October 1976)

No. 47 A Comparison of the Performance of Swedish & U.K. Companies, by C. F. Pratten (published November 1976)

No. 51 Disappointing Marriage: A Study of the Gains from Merger, by G. Meeks (published July 1977)

CAMBRIDGE STUDIES IN APPLIED ECONOMETRICS

This series, published for the Department by Chapman & Hall, has replaced A Programme for Growth as the outlet for the results of the research undertaken by the Cambridge Growth Project. The first volume, Models and Projections of Demand in Post-War Britain, by Angus Deaton, was published in March 1975.

No. 2 in the series, Economic Structure and Policy, edited by T.S. Barker, was due for publication in November 1976.

DAE PAPERS IN INDUSTRIAL RELATIONS AND LABOUR

This new series is published for the Department by Cambridge University Press. Its purpose is to provide a medium for rapid publication of studies on the issues of industrial relations and labour policy which have in recent years become the subject of public concern. No new titles were added to the series during the year.

CAMBRIDGE STUDIES AND PAPERS IN SOCIOLOGY

Nothing was published in these series during the year.

DAE REPRINT SERIES

This series, distributed by the Department free of charge to Libraries and academic institutions, contains reprints of articles published by members and associates of the Department, in journals and elsewhere. From next year it will be discontinued and replaced by two separate series for papers in economics and sociology respectively.

The final titles published in the Reprints Series were:

- No. 424 'Personal spending and saving in postwar Britain' by Richard Stone, from Economic Structure and Development: Essays in Honour of Jan Tinbergen, North-Holland, 1973.
- No. 425 'National accounts and development planning in low-income countries: experience of the Fiji islands', by Michael Ward, from National Accounts and Development Planning in Low-income Countries, OECD, 1974.
- No. 426 'The measurement of income and price elasticities', by A.S. Deaton, European Economic Review, 6, 1975.
- No. 427 'The role of industrialisation in Latin American inflation', by Nicholas Kaldor, from Fiscal Policy for Industrialization and Development in Latin America, University Pressco of Florida, 1974.
- No. 428 'The law of unfair dismissal - job security and personnel management', by Dudley Jackson, Business Economist, Spring 1975.
- No. 429 'Private non-profit-making bodies serving persons' by John Moyle and David J. Reid, and 'Private non-profit-making bodies serving persons: balance sheets for 1969 and 1970', by John Moyle and Athol Cowley, Economic Trends, May and June 1975.
- No. 430 'The seventh pay policy', by H.A. Turner and Frank Wilkinson, New Society, 17 July 1975.
- No. 431 'What is wrong with economic theory', by Nicholas Kaldor, Quarterly Journal of Economics, August 1975.
- No. 432 'Take-overs, economic natural selection, and the theory of the firm: evidence from the postwar United Kingdom experience', by Ajit Singh, Economic Journal, September 1975.

III OTHER ACTIVITIES

THE LIBRARY

During the period October 1975 to September 1976, the Department has received 138 periodicals; 18 of these were in exchange for the Department's Reprint Series and 46 were gifts, the remainder being purchased. The library has acquired 92 books, 695 pamphlets and reprints, and 331 British government publications.

THE COMPUTING UNIT

This unit, under the direction of Dr. L.J. Slater, continued to serve almost all the projects running in the Department, as well as providing advice and service to many members of the Faculty of Economics, and the rest of the University, including many research students. Once again, the Growth Project, under Professor Stone, was the main user of the unit's resources.

GEM (A General Economic Matrix Program), written by Dr. Slater, was published as DAE Occasional Paper No. 46. The writing of a similar paper on the AR system, for calculating autoregressive processes, continued in collaboration with Dr. M.H. Pesaran, of the Bank of Iran. Mr. Gillion, of the Victoria University, Wellington, New Zealand, visited the Department for the academic year. Several large data sets were processed for visitors and the main data on Company Finance was updated to 1973. A survey of the need for nursery facilities in the University was carried through by Mrs. Craig and the staff of the punching room.

This staff, under Mrs. Coe, continued to punch and verify several large sets of data for the Sociology unit, under Dr. Blackburn, and for the University Library.

There were four changes in staff during the year:

Mr. Michael Hughes, Mrs. Louise Mills and Mrs. Terry Sparkes left, and Miss Linda Crowston was taken on.

Dr. Slater gave a lecture course on Computing for Economists, and the staff of the computing room, under Mrs. Marion Hughes, together with the assistant programmer Roger Smith, continued to give support and help to many other members of the research staff and students.

Only some small Rockwell desk calculators were purchased during the year, and there was no major expenditure on equipment.

TEACHING FOR THE UNIVERSITY AND FOR COLLEGES

During the year members of the research staff of the DAE gave lectures for the Faculty of Economics on 'alternative perspectives on the British economy' (Part I); economic and social statistics (Preliminary for Part II); on urban economics, on labour problems in developing countries, and on problems in applied economics (Part II). They also supervised postgraduate students in Economics and in Sociology and gave seminars for them in statistical methods and other subjects.

Most members of the research staff of the DAE undertook for colleges the supervision of undergraduates during the year. They also provided for colleges seven directors of studies in Economics and three in Social and Political Sciences.

SEMINARS

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

- | | |
|-----------------|--|
| T.S. Barker | 'A priori restrictions and the analysis of British imports 1955-72' (given to the Econometric Study Group, London and to the Cambridge Growth Project)

'Projecting alternative futures for the British economy' (given at Birkbeck College, London)

'CANDIDE and MDM: A comparison of two large-scale econometric models' (given at the Economic Council of Canada, Ottawa)

'Policy exercises using a static input-output model' (given at the Economic Council of Canada, Ottawa)

'Some determinants of UK import prices: a disaggregated approach' (given to the Cambridge Growth Project) |
| J. A. Beath | 'Single equation estimates of a disaggregated markup model of price formation' (given at the University of Reading)

'Models of Industrial Price Formation' (given at Birkbeck College, London)

'Factor shares and the shifting of the corporate income tax' (given to the Cambridge Growth Project) |
| A.S. Deaton | Seminars given at:
Birkbeck College, London
Essex University
Bristol University
Central Bank of Iran
University of Louvain, Belgium
C.O.R.E. Belgium |
| M.J. Fetherston | 'The behaviour of the UK private sector: a New School approach' Research Students' Seminar, Cambridge

'The Cambridge Economic Policy Group Model' part of course on The Structure and Use of Macro-economic Models for Government economists at the Civil Service College, Sunningdale. |

M.A. King

Seminars given at:
Oxford University
Belfast University
Sussex University
University College, London
Treasury
CEPREMAP, Paris
Industrial Institute for Economic Research,
Stockholm

A.W.A. Peterson

'Factor Demand Functions' (given to the Cambridge Growth Project)

'A dynamic model of employment and hours worked' (given to the Cambridge Growth Project)

'Total factor productivity in the UK - a disaggregated analysis' (given to the Mathematical Economics seminar at Churchill College, and to the Cambridge Growth Project)

'The structure of a disaggregated model', Civil Service College, London

R.J. Tarling

'An analysis of the duration of unemployment' (given at Sussex University)

'Growth in advanced economics: Kaldor's Laws' (given at Cardiff University)

'Wage settlement indices' (given to the Mathematical Economics Seminar at Cambridge)

S.F. Wilkinson

'Wages in the British Steel Industry' (given at Warwick University)

'The inflationary impact of collective bargaining' (given at Reading University).

L.A. Winters

'The determinants of UK export prices' (given to (i) Cambridge Growth Project (ii) Research Students Seminar, Cambridge)

'Supply and demand in a recursive model of exports' (given to Cambridge Growth Project)

UNIVERSITY RELATIONSHIPS

Several members of the Department's research staff are members of University committees, including the Faculty Board of Economics and Politics and the Social and Political Sciences Committee.

IV FINANCE

The Department's annual expenditure rose from £232,788 in 1974-75 to £266,466 in 1975-76. Eightyseven per cent of the expenditure was on stipends and wages.

University grant rose from £80,773 in 1974-75 to £99,701 in 1975-76, an increase of £18,928. Expenditure rose by £33,678.

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	63,591
National Economic Development Organisation	6,310
Institute for Fiscal Studies	5,310
Department of Employment	1,500
Nuffield Foundation	850
Northampton Regional Hospital Board	400
	£77,961

V S T A F F

RESEARCH STAFF October 1975 - September 1976

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), Fellow of Downing College

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

T.F. Cripps, BA(Cantab.), Churchill College

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

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

V.H. Woodward, MA(Cantab.), BA(Nottingham), St. Catharine's College

RESEARCH OFFICERS

M. Abdel-Fadil, B.Com(Cairo), DES, PhD(Sorbonne), Trinity College, left 31 December 1975 to become Assistant Director of Development Studies.

J.A. Beath, MA(St.Andrews), M.Phil(London), MA(Penn.), St. John's College

V. Brailovsky, BA(Cantab.), Queens' College

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

P.J. Daniel, MA(Cantab.), MA(E.Anglia), St. Catharine's College, left 30 September 1976 to join the Central Planning Office, Papua New Guinea

A.S. Deaton, MA, PhD(Cantab.), Fellow of Fitzwilliam College, left 31 July 1976 to become Professor of Econometrics, University of Bristol.

M.J. Ellman, MA, PhD(Cantab.), MSc(Econ.)(London), Fellow of Fitzwilliam College

L.J. Handy, MA(Cantab.), BA(Leeds), Clare College

D.A.S. Jackson, MA(Cantab.), MA, B.Phil(Oxon.), Fellow of St. Catharine's College, left 31 August 1976 to become Professor of Business Economics, University of Aston

M.A. King, MA(Cantab.), Fellow of St. John's College, left 30 September 1976 to become University Lecturer in Economics

G.E.J. Llewellyn, MA(Cantab.) D.Phil(Oxon.), BA(Hons) (Victoria University of Wellington), Fellow of St. John's College

B.C. Moore, MA(Cantab.), MSc(Econ.)(London)

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

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

R.J. Tarling, MA(Cantab.), Churchill College

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

S.F. Wilkinson, MA(Cantab.), King's College

JUNIOR RESEARCH OFFICERS

P.E. Atkinson, BA(Cantab.), Trinity College

K.J. Coutts, BA(Cantab.), Selwyn College

M.J. Fetherston, BA(Cantab.), Trinity College

A.W.A. Peterson, BA(Cantab.), MA(Essex), King's College

L.A. Winters, MA(Cantab.), BSc(Bristol), Fitzwilliam College

PUBLICATIONS SECRETARY

Ms. J.M. Bradley

STAFF

Professor W.B. Reddaway, Fellow of Clare College
C.C. Roberts, Institut für Wirtschaftsforschung, Munich
T. Schweitzer, Economic Council of Canada, Ottawa
J. Smucker, Concordia University, Montreal
Professor J.R.N. Stone, Fellow King's College
Professor H.A. Turner, Fellow of Churchill College
D. Webb, Leicester University

ASSISTANT STAFF October 1975 - September 1976

Mrs. M.J. Barnett
Mrs. J.S. Barringer
Mrs. P. Bentley
E.D. Bougourd
Miss M.V. Clark
Mrs. R. Coe
Miss S.L. Dawson
Miss D.M. Day
Miss T.F. Fox
Miss T.C. Gurner
Miss V. Herman
Miss C.A. Hudson
Miss B.E. Hughes
M.J. Hughes

Mrs. M.R. Hughes
Mrs. J.M. Leverett
Miss A. Mason
Mrs. A.L. Mills
Mrs. L. Oliver
Mrs. O.E. Peppercorn
Miss S.D. Seal
Mrs. S. Sibson-Turnbull
Mrs. L.E. Silk
R.M. Smith
Mrs. T.J. Sparkes
Miss A.C. Twyman
Mrs. G.E. Wallman