

**NATIONAL INCOME AND ECONOMIC
PROGRESS**

Colin Clark



Photograph by J. L. K. Gifford

National Income and Economic Progress

Essays in Honour of Colin Clark

Edited by
Duncan Ironmonger
Reader in Applied Economic Research
University of Melbourne

J.O.N. Perkins
Professor of Economics
University of Melbourne

Tran Van Hoa
Senior Lecturer in Econometrics
University of Wollongong

M
MACMILLAN
PRESS

© Colin Clark Trust **Fund**, Department of Economics,
University of Queensland, 1988

Softcover reprint of the hardcover 1st edition 1988 978-0-333-45757-3

All rights reserved. No reproduction, copy or transmission
of this publication may be made without written permission.

No paragraph of this publication may be reproduced, copied
or transmitted save with written permission or in accordance
with the provisions of the Copyright Act 1956 (as amended),
or under the terms of any licence permitting limited copying
issued by the Copyright Licensing Agency, 33–4 Alfred Place,
London WC1E 7DP.

Any person who does any unauthorised act in relation to
this publication may be liable to criminal prosecution and
civil claims for damages.

First published 1988

Published by
THE MACMILLAN PRESS LTD
Houndmills, Basingstoke, Hampshire RG21 2XS
and London
Companies and representatives
throughout the world

British Library Cataloguing in Publication Data
National income and economic progress: essays
in honour of Colin Clark.

1. Economic development 2. National income
I. Ironmonger, Duncan II. Perkins, J.O.N.
III. Van Hoa, Tran IV. Clark, Colin, 1905–
330.9 HD82

ISBN 978-1-349-19342-4

ISBN 978-1-349-19340-0 (eBook)

DOI 10.1007/978-1-349-19340-0

Contents

Preface vii

Notes on the Contributors xii

Colin Clark
H.W. Arndt 1

Part I National Income and Outlay

1 The Development of Economic Statistics as an Influence on
Theory and Policy
Alec Cairncross 11

2 Progress in Balancing the National Accounts
Richard Stone 21

3 Statistical Perspectives and Economic Stability
Duncan Ironmonger 32

4 Econometric Modelling of Private Consumption Using
OECD National Accounts
Tran Van Hoa 49

5 Distributed Control of Econometric Data Bases and
Models
Ippei Sugiura 70

Part II The Conditions of Economic Progress

6 The Use of Statistics for Policy Advising: Colin Clark
in Queensland, 1938–52
George Kenwood 107

7 Twenty-Five Per Cent Forty Years On
J.O.N. Perkins and Tran Van Hoa 123

8	Countertrade: Solution or Problem? <i>Derek T. Healey</i>	139
9	Global Monetarism <i>Laurence R. Klein</i>	168
10	Population Growth and Economic Development <i>A.P. Thirlwall</i>	177
	<i>Appendix: Factors that Determine the Growth of Labour Productivity (P.J. Verdoorn translated by A.P. Thirlwall)</i>	199
	<i>Another Non-Econometrician's Lament J.O.N. Perkins</i>	208
	<i>Index</i>	210

Acknowledgements

The editors and publishers wish to thank: The Free Press, a division of Macmillan Publishing Company Inc., for permission to include the biographical essay on Colin Clark written by Professor H.W. Arndt and taken from *International Encyclopedia of Social Sciences: Biographical Supplement*, David L. Sills, editor. Copyright © 1979 by The Free Press; and Oxford University Press Inc. for permission to use three figures from *World Development Report, 1984*. Copyright © 1984 by the International Bank for Reconstruction and Development/The World Bank.

Preface

This volume of essays was conceived in November 1985 when the three of us were invited to fly north from Melbourne to Brisbane to attend a dinner at the University of Queensland in honour of Colin Clark's eightieth birthday. That it was his eightieth birthday had taken us a little by surprise. We could readily believe that Colin, so enquiring of mind and so willing to do battle on the interpretation of the latest statistics or the testing of new theory, might perhaps have reached his seventieth or seventy-fifth birthday. Colin's work in economics has indeed encompassed more than fifty years.

This volume, *National Income and Economic Progress*, is a book of essays by friends and former colleagues of Colin Clark, written in appreciation of his pioneering and influential contributions to the application of statistics to economics.

The essays fall into two groups. The first five, in Part I: *National Income and Outlay*, relate in various ways to Colin's early work on the statistics of national income and outlay which he published in *National Income* (1932) and *National Income and Outlay* (1937). The second five essays, in Part II: *The Conditions of Economic Progress*, relate to the volume of that title, published in 1940, and which is regarded as Clark's most important work. The essayists examine policy issues at both national and international levels and, like Clark, systematically use national accounts data to test macroeconomic hypotheses and explore the conditions for economic growth and development.

We begin the volume with an assessment of Colin Clark's work by Heinz Arndt republished with permission from the *Encyclopedia of the Social Sciences*. The essays conclude with a light-hearted lament from a non-econometrician, J.O.N. Perkins.

PART I NATIONAL INCOME AND OUTLAY

The five essays in Part I cover various aspects of the development of national accounts in the last fifty years. The first, by Sir Alec Cairncross, discusses the influence on economic theory and economic policy of the development of economic statistics. He brings to light

some of his experience in the use of economic statistics for policy making during and after the Second World War.

Cairncross points to 1940 when the statistical situation in Britain was transformed. In his opinion, what took place in 1940 was nothing short of a revolution in statistics. Clark's influence on this revolution in the use of statistics for current policy was the encouragement he gave to the *estimation* of economic aggregates. Cairncross is puzzled that there is as yet no history of economic statistics and wonders why one of the most important changes in human affairs has 'passed almost without comment and analysis'. He sketches out some of the important milestones and contributions to the emergence of statistics in economic management. He draws attention to the take-off in statistics that occurred in Britain in the 1930s and the first attempt to estimate the national income (by Dudley Baxter in the 1860s).

In the second essay, 'Progress in Balancing the National Accounts', Sir Richard Stone treats us to a little history of the early problems in reconciling the British national income and expenditure accounts which were first attempted by Colin Clark and A.E. Feavearyear in 1934 and for which Myra Curtis reached a reconciliation in 1935. Stone then provides a formal statement of the problem of adjusting a single set of national accounts and concludes with a survey of some of the results of applications of procedures to actual accounts. The survey covers work by Ray Byron, Clive Bell, Terry Barker, Frederick van der Ploeg and Martin Weale, as well as Richard Stone's own work on balancing the British national accounts.

Duncan Ironmonger begins the third essay, 'Statistical Perspectives and Economic Stability', with Colin Clark's view that the role of economic measurement was to test the properties of economic theory and that the development of national income statistics was needed to redress the 'lop-sided development' of economics in an 'over-theoretical direction'. The essay discusses the evolution of perspectives about which statistics are necessary for the implementation of policies to stabilise the path of an economy. It covers leading indicators, first developed by Wesley Mitchell; unemployment statistics, standardised by the International Labour Office; national income and expenditure, developed as an official instrument of economic policy by Maynard Keynes and Richard Stone; money, promoted by Milton Friedman; and the world-wide statistics of national income and expenditure, international trade and finance used by Lawrence Klein and Project LINK.

In the spirit of providing an econometric model that ‘flies’, Tran Van Hoa’s essay ‘Econometric Modelling of Private Consumption Using OECD National Accounts’ follows Colin Clark’s view that a useful econometric model must not only be theoretically plausible on economic grounds but also empirically consistent with real-life data. The essay is concerned to combine contemporary mainstream theories of aggregate consumption and standardised international economic statistics to model aggregate consumption in seven OECD countries. Tran Van Hoa finds that the simple dynamic model of aggregate private consumption proposed by Davidson, Hendry, Srba and Yeo (1978), is the preferred form in five of the seven countries, compared with other modelling specifications examined in the study. In West Germany and the UK a short-run variant of the consumption function is preferred. This is in apparent contradiction of the original findings of Davidson *et al.*

In the final essay of Part I, ‘Distributed Control of Econometric Data Bases and Models’, Ippei Sugiura describes some of the remarkable developments of personal computers and associated software in the last three or four years. The capacity and speed of these machines and the sophistication of the programs have reached the stage where econometricians no longer need the large ‘number-crunchers’ of the 1960s and 1970s. Sugiura explains how, through a network of small personal computers using electronic mailing, it would be possible to run simulations and forecasts in a distributed control mode for a system as large as the 72 countries and regions of Project LINK.

PART II THE CONDITIONS OF ECONOMIC PROGRESS

This part begins with the essay by George Kenwood, ‘The Use of Statistics for Policy Advising: Colin Clark in Queensland, 1938–52’. Kenwood explores in some detail the range of policy advice Clark gave during the fourteen years he was Director of the Bureau of Industry, Financial Adviser to the Queensland Treasury and Government Statistician. Clark’s first task was to state the case for increased loan expenditure by the State governments which in the circumstances of unemployed resources in 1938 would have had a strong multiplier effect on employment. Clark played his part in introducing Keynesian economics to Australia by arguing that the loan expenditure would also generate large increases in national income and

sufficient savings to finance the loan expenditure. Kenwood covers Clark's policy advice regarding rural development, town and city sizes, and the development of manufacturing and service industries. For Clark, value judgements are implicit in policy making and he was never prepared to hide his value judgements behind a smoke screen of economic positivism.

The next essay, 'Twenty-five per cent Forty Years On', by J.O.N. Perkins and Tran Van Hoa tests recent evidence from OECD countries to see whether there is a tendency for the rising tax ratios of recent decades to be significantly related to the rate of inflation. In effect they test the famous Clark hypothesis (1946) that when the ratio of taxes to national income exceeded 25 per cent (or when government outlays exceed 25 per cent if there was a budget deficit) a country tended to suffer from inflation. Perkins and Tran Van Hoa find that changes in the ratio of taxes to GDP and changes in the quantity of money both have statistically significant positive relationships with inflation for the aggregate of OECD countries over the period 1971–85 but that neither the ratio of government outlays to GDP nor unemployment have a significant relationship, positive or negative. They conclude that if the world had taken to heart the Colin Clark article of forty years ago it would not have been so complacent about the risk that tax increases could cause inflation.

In his essay 'Countertrade: Solution or Problem?', Derek Healey attempts to draw up a balance sheet to measure how the welfare of the countries participating in countertrade deals was affected by those deals, and, indeed, whether world welfare was enhanced or diminished by them. Barter is the simplest form of countertrade but is rare today. More complicated arrangements for linking imports to exports now exist and include compensation deals, counterpurchases, 'co-operation' (long-term contracts particularly favoured by Comecon) and buy-back arrangements. Although the GATT estimates countertrade to be as high as 8 per cent of world trade (and some other estimates are higher again), Healey calculates the proportion is 4.3 per cent in 1984, close to the OECD estimate of 4.8 per cent in 1983. Thus, although countertrade is probably no more than 5 per cent of world trade, Healey finds indications of forces impelling the world towards even more 'managed' trade in spite of opposition that has come mainly from GATT, OECD and the IMF.

Lawrence Klein's essay 'Global Monetarism' undertakes a measurement task worthy of Colin Clark. He attempts to answer the question 'Does the monetarist model prevail on a world scale?' Using

International Monetary Fund statistics, Klein investigates whether some versions of the main monetary equation – the relationship between velocity and interest rate – hold for the world as a whole, or for the industrial countries as a whole. He finds that the data make a plausible case that velocity is not a constant, but a variable that depends on interest rates, thus lending support either to the Keynesian liquidity preference theory or to Kalecki's J-curve for velocity, both of which challenge the monetarist position.

The final essay in the volume, 'Population Growth and Economic Development', by Tony Thirlwall, discusses the complex connections between population growth and development with a basic thesis that the deleterious effects of population growth on the growth of living standards are probably exaggerated. The essay includes as an appendix the author's translation into English (for the first time) of P.J. Verdoorn's 1949 paper 'Fattori che Regolano lo Sviluppo della Produttività del Lavoro', the origin of Verdoorn's law, from which Clark drew inspiration for his view that the population problem was a 'development myth'.

DUNCAN IRONMONGER
J.O.N. PERKINS
TRAN VAN HOA

Notes on the Contributors

H.W. Arndt is Professor Emeritus, Australian National University.

Sir Alec Cairncross is Chancellor, University of Glasgow.

Derek T. Healey is Reader in Economics, University of Adelaide.

Duncan Ironmonger is Reader in Applied Economic Research, University of Melbourne.

George Kenwood is Head, Department of Economics, University of Queensland.

Lawrence R. Klein is Benjamin Franklin Professor of Economics, University of Pennsylvania.

J.O.N. Perkins is Professor of Economics, University of Melbourne.

Sir Richard Stone is Professor Emeritus, University of Cambridge.

Ippei Sugiura is Professor of Economics, Wakayama University.

A.P. Thirlwall is Professor of Applied Economics, University of Kent at Canterbury.

Tran Van Hoa is Senior Lecturer in Econometrics, University of Wollongong.