CURRENT ISSUES IN MICROECONOMICS

CURRENT ISSUES IN MICROECONOMICS

General Editor: David Greenaway

- Vol. 1 *Current Issues in Microeconomics*
Edited by John D. Hey, University of York.
- Vol. 2 *Current Issues in Macroeconomics*
Edited by David Greenaway, University of Nottingham.
- Vol. 3 *Current Issues in Labour Economics*
Edited by David Sapsford, University of East Anglia,
and Zafiris Tzannatos, University of Buckingham.
- Vol. 4 *Current Issues in International Monetary Economics*
Edited by David T. Llewellyn and Chris Milner,
Loughborough University
- Vol. 5 *Current Issues in Public Sector Economics*
Edited by Peter Jackson, University of Leicester
- Vol. 6 *Current Issues in Development Economics*
Edited by V. N. Balasubramanyam, University of
Lancaster, and Sanjaya Lall, University of Oxford
- Vol. 7 *Current Issues in Industrial Economics*
Edited by John Cable, University of Warwick
- Vol. 8 *Current Issues in Monetary Economics*
Edited by Kevin Dowd and M. K. Lewis, University of
Nottingham.
- Vol. 9 *Current Issues in Welfare Economics*

Current Issues in Microeconomics

Edited by
John D. Hey
Professor of Economics and Statistics
University of York

Macmillan Education

Selection and editorial matter © John D. Hey 1989
Individual chapters © John D. Hey, Mark J. Machina, Ray Rees,
Bruce Lyons and Yanis Varoufakis, Melvyn Coles and
James M. Malcolmson, Graham Loomes, Paul Madden, Ian Walker,
John Broome, Robert A. Solo 1989

Softcover reprint of the hardcover 1st edition 1989 978-0-333-45472-5

All rights reserved. For information write:
Scholarly and Reference Division,
St. Martin's Press, Inc., 175 Fifth Avenue, New York, NY 10010

First published in the United States of America in 1989

ISSN 0-312-03462-8

Library of Congress Cataloging-in-Publication Data
Current issues in microeconomics.

(Current issues in economics; vol. 1)

Bibliography: p.

Includes index.

1. Microeconomics. I. Hey, John Denis. II. Series.
HB172.C86 1989 338.5 89-6420

ISBN 978-0-333-45473-2 ISBN 978-1-349-20290-4 (eBook)

DOI 10.1007/978-1-349-20290-4

Contents

LIST OF FIGURES	vii
LIST OF TABLES	ix
SERIES EDITOR'S PREFACE	x
NOTES ON THE CONTRIBUTORS	xii
1 INTRODUCTION: RECENT DEVELOPMENTS IN MICROECONOMICS <i>John D. Hey</i>	1
2 CHOICE UNDER UNCERTAINTY: PROBLEMS SOLVED AND UNSOLVED <i>Mark J. Machina</i>	12
3 UNCERTAINTY, INFORMATION AND INSURANCE <i>Ray Rees</i>	47
4 GAME THEORY, OLIGOPOLY AND BARGAINING <i>Bruce Lyons and Yanis Varoufakis</i>	79
5 CONTRACT THEORY AND INCENTIVE COMPATIBILITY <i>Melvyn Coles and James M. Malcomson</i>	127
6 EXPERIMENTAL ECONOMICS <i>Graham Loomes</i>	152

7	GENERAL EQUILIBRIUM AND DISEQUILIBRIUM AND THE MICROECONOMIC FOUNDATIONS OF MACROECONOMICS	
	<i>Paul Madden</i>	179
8	MICROECONOMIC MODELLING AND MICRO- ECONOMIC POLICY ANALYSIS	
	<i>Ian Walker</i>	209
9	WHAT'S THE GOOD OF EQUALITY?	
	<i>John Broome</i>	236
10	INSTITUTIONAL ECONOMICS	
	<i>Robert A. Solo</i>	263
	END-NOTES	277
	REFERENCES	289
	AUTHOR INDEX	310
	SUBJECT INDEX	314

List of Figures

2.1	Concave utility function of a risk averter	15
2.2	Convex utility function of a risk lover	16
2.3	Expected utility indifference curves in the triangle diagram	18
2.4	Relatively steep indifference curves of a risk averter	19
2.5	Relatively flat indifference curves of a risk lover	20
2.6	Expected utility indifference curves and the Allais paradox	23
2.7	Indifference curves which ‘fan out’ and the Allais paradox	24
2.8	Indifference curves which fan out and the common ratio effect	26
2.9	Indifference curves which fan out and the common ratio effect for negative pay-offs	27
2.10	‘Recovered’ utility functions for mixture probabilities $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$	28
2.11	Fanning out indifference curves which generate the responses of Figure 2.6a	29
2.12	‘Indifference curves’ for the expected regret model	35
2.13	Risk aversion of every local expected utility approximation is equivalent to global risk aversion	36
2.14	Duplex gambles with identical underlying distributions	38
3.1	Fair insurance	50
3.2	Insurance in general	54
3.3	Social risk, exchange and insurance	57
3.4	No social risk implies full insurance	59
3.5	Full information equilibrium	63
3.6	Pooled insurance	66

3.7	Separating equilibrium	68
3.8	The moral hazard problem	71
3.9	Solution to the moral hazard problem	73
3.10	Optimal partial coverage	75
3.11	Optimal partial coverage may or may not exist	76
4.1	Prisoners' dilemma	82
4.2	Best replies and Nash equilibrium	85
4.3	Cournot–Nash equilibrium	86
4.4	Entry game in normal form	88
4.5	Entry game in extensive form	89
4.6	Pre-commitment in the entry game	91
4.7	Bertrand–Nash duopoly with identical firms	92
4.8	Bertrand competition with entry and fixed costs	93
4.9	Capacity-constrained price competition with $q_c > k > \frac{1}{3}q_c$	95
4.10	Discontinuous best-reply curves	96
4.11	Stick and carrot	101
4.12	Multiple Nash equilibria in the one-shot (stage) game	103
4.13	Nash equilibrium in the division game	110
4.14	Duration of costly bargaining	119
4.15	Pay-off matrix	120
4.16	Duration of bargaining	123
7.1		184
7.2		185
7.3		191
7.4		195
7.5		201
7.6		206
8.1	Labour supply and commodity demands under two-stage budgeting	212
8.2	Rationed and unrationed cost functions	216
8.3	Pre- and post-reform constraints	223
8.4	Distributional effects of proportional income tax	225
8.5	Tax reduction by income decile	232
8.6	EG and tax reductions by equivalent income decile	234

List of Tables

3.1	Individual versus social risk	56
6.1	Demand and supply schedules	163
8.1	Behavioural and welfare analysis by household type	224
8.2	Atkinson equivalent income inequality indices before and after reform	225
8.3	Estimated elasticities	227
8.4	Behavioural responses to harmonisation	230
8.5	Sources of tax revenue	231
8.6	Reductions in indirect taxes paid	233
8.7	Atkinson equivalent income inequality indices before and after harmonisation	234
8.8	Social welfare change	235
9.1	States of nature or people	243
9.2	Income distributions	249

Series Editor's Preface

The *Current Issues* series has slightly unusual origins. *Current Issues in International Trade*, which Macmillan published in 1987 and which turned out to be the pilot for the series was in fact 'conceived' in the Horton Hospital, Banbury, and 'delivered' (in the sense of completed) in the Hilton International in Nicosia! The reader may be struck by the thought that a more worthwhile and enjoyable production process would start and finish the other way around. I agree! Be that as it may, that is how the series started.

As I said in the Preface to *Current Issues in International Trade* the reason for its creation was the difficulty of finding suitable references on 'frontier' subjects for undergraduate students. Many of the issues which excite professional economists and which dominate the journal literature take quite a time to percolate down into texts, hence the need for a volume of *Current Issues*. The reception which *Current Issues in International Trade* received persuaded me that it may be worth doing something similar for the other subject areas we teach. Macmillan agreed with my judgement, hence the series. Thus each volume in this series is intended to take readers to the 'frontier' of the particular subject area. Each volume contains ten essays, nine of which deal with specific current issues, and one which provides a general overview, setting the relevant current issues in the context of other recent developments.

As series editor the main challenge I faced was finding suitable editors for each of the volumes – the best people are generally the busiest! I believe, however, that I have been fortunate in having such an impressive and experienced team of editors with the necessary skills and reputation to persuade first-class authors to participate. I would like to thank all of them for their cooperation and assistance in the development of the series. Like me, all of them

will, I am sure, hope that this series provides a useful service to undergraduate and postgraduate students as well as faculty.

Microeconomics is the point of embarkation for almost all students of economics. Being at the core of the discipline, it is also an area to which most of us return from time to time, whatever our specialism. In this volume John Hey has selected nine issues which have been at the centre of recent developments in economics, issues which include: choice under uncertainty; microeconometrics; experimental economics; game theory; macroeconomics, and a number of others besides. He has persuaded a group of distinguished authors from the United Kingdom and North America to contribute. The result is a volume which should prove to be challenging, stimulating, and rewarding (in that order).

As well as being a first-rate economist, John Hey has considerable editorial skills. The combination of the two has resulted in what I think is a very fine volume. He himself provides a skilful overview of the chapters in his introductory chapter and it is unnecessary for me to comment on the detail of the chapters. I hope readers find the essays as interesting and rewarding as I have.

University of Nottingham

DAVID GREENAWAY

Notes on the Contributors

John Broome is Reader in Economics, University of Bristol.

Melvyn Coles is Assistant Professor of Economics, Princeton University.

John D. Hey is Professor of Economics and Statistics, University of York.

Graham Loomes is Senior Lecturer in Economics, University of York.

Bruce Lyons is Lecturer in Economics, University of East Anglia.

Mark J. Machina is Associate Professor of Economics, University of California, San Diego.

Paul Madden is Senior Lecturer in Econometrics and Social Statistics, University of Manchester.

James M. Malcomson is Professor of Economics, University of Southampton.

Ray Rees is Professor of Economics, University of Guelph.

Robert A. Solo is Professor of Economics, Michigan State University.

Yanis Varoufakis is Lecturer in Economics, University of East Anglia.

Ian Walker is Professor of Economics, Keele University.