

# Disarray in World Food Markets

A QUANTITATIVE ASSESSMENT



Rod Tyers and Kym Anderson

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## Preface

Public discussion of the crisis in international agricultural trade that has developed over the past two decades has been greatly aided by a number of major studies. Foremost among these is Professor D. Gale Johnson's seminal book *World Agriculture in Disarray*, first published in 1973. This book was among the first to point out the problems caused by inward-looking agricultural policies in an increasingly interdependent world. Many worthy studies followed as gyrations of increasing amplitude were observed in world food prices. In 1985, a group of specialists on the problem were drawn together by the World Bank to prepare the *World Development Report 1986*. In the course of that project we were encouraged to extend our earlier work on policies affecting world trade in temperate agricultural products in ways which ultimately led to the completion of this volume. We are particularly indebted to Professor Johnson for this encouragement. Many of his ideas are reflected in our work. We have even borrowed the word 'disarray' from the title of his book. It is our contention that the concerns to which he applied this term in 1973 are even more problematic today.

The centrepiece of the book is the estimation of the economic effects of policies which distort food markets and their incidence across countries and among groups within countries. At the time of writing, ours is one of a number of studies with this aim. But, it remains the only one which incorporates both the dynamic properties of food markets, including the role of food stocks, and an assessment of the degree to which distortionary policies serve the purpose of insulating domestic agents from fluctuations in the international market place.

This book adds further to the current literature by complementing the analysis of the effects of food policies with a

quantitative review of long-term trends in world food market behaviour and an extensive examination of the reasons why governments choose to implement distortionary policies. The latter follows on from the 1986 study by Kym Anderson, Yujiro Hayami and others (*The Political Economy of Agricultural Protection*). In addition, we have included an examination of some of the reforms which have been proposed in the Uruguay Round of multilateral trade negotiations which began in September 1986.

*Rod Tyers and Kym Anderson*

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## Acknowledgements

Our joint work on the international economics of agriculture has extended over more than a decade. It began at a conference on food security at the East-West Center's Resource Systems Institute in Honolulu in 1980, for which a mathematical model of world food trade was constructed by Rod Tyers, in collaboration with Professor Tony Chisholm. After much modification and updating, that model forms the essential core of the analysis presented in this book. The initial development of the model was greatly aided by the generous support of the Director of the Resource Systems Institute, the late Professor Harrison Brown. His successor, Professor Seiji Naya, has also offered valuable support and advice in the course of our work, facilitating our participation at subsequent conferences on related topics. In addition, we are grateful for external funding in 1980 and 1981 from the Economic Research Service of the United States Department of Agriculture.

In the mid-1980s our research continued at the Australian National University, with the support of the National Centre for Development Studies and the Department of Economics in the Research School of Pacific Studies, and with help from the Department of Foreign Affairs and Trade of the Australian Government. Professors Helen Hughes, Peter Drysdale and Ross Garnaut were strongly supportive of the continuation of the work at the Australian National University. In 1985, particular encouragement from Professor D. Gale Johnson and support from the World Bank (associated with our contribution to the Bank's *World Development Report 1986*) facilitated a further update and extension of our trade-modelling work and cemented our intention to write this book.

In the late 1980s this work continued at the Department of

Economics at the University of Adelaide as a project of the Centre for International Economic Studies. During this period we received external support for particular papers on topics covered by this book from the International Food Policy Research Institute, the International Agricultural Trade Research Consortium, the Centre for International Food and Agricultural Policy at the University of Minnesota, the OECD Development Centre, the World Bank, the Australia-Japan Research Centre and the Australian Department of Foreign Affairs and Trade.

We are particularly grateful for the comments and suggestions offered by numerous colleagues in addition to those mentioned thus far. An incomplete list includes Richard Cornes, Wally Falcon, Rod Falvey, John Freebairn, Frank Jarrett, Gordon Rausser, Martin Ravallion, Ammar Siamwalla, Alberto Valdes and Brian Wright. Special thanks are due to Peter Lloyd who offered numerous comments and suggestions on our first complete draft. Invaluable research assistance has been provided over the years by Melissa Gibbs, Christina Jancovic, Eric Saxon, Suthad Setboonsarng, John Souter, Helen Wickens, Berhanu Woldekidan and by Prue Phillips and her staff from the International Economic Data Bank at the Australian National University. We are also much indebted to Debbie Beckman who cheerfully word processed and re-processed the various drafts of the manuscript.

Few books are written without strong support from authors' families and this one is no exception. To our wives and children we offer our sincere thanks.

Finally, we note with sadness the death in 1991 of Roger Reville, a great American scientist, teacher and mentor. It was his guidance and commitment, while Professor at Harvard University, which cemented the senior author's interest in food and agricultural policy.

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## *Abbreviations and Glossary*

ASEAN	The six member countries of the Association of Southeast Asian Nations (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand)
Australasia	Australia and New Zealand
CAP	Common Agricultural Policy of the European Community
Centrally planned Europe	The USSR plus Eastern Europe.
CPE	Centralised planned economy
East Asia	Northeast and Southeast Asia
Eastern Europe	The eight (currently or formerly) centrally planned economies of Albania, Bulgaria, Czechoslovakia, DPR (East) Germany, Hungary, Poland, Romania, Yugoslavia
EC or EC-12	European Community of twelve member countries (Belgium, Denmark, Federal Republic of (West) Germany, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom)
EC-10	The above countries minus Portugal and Spain (the most recent entrants)

EFTA	European Free Trade Association of six member countries (Austria, Finland, Iceland, Norway, Sweden and Switzerland)
EFTA-5	EFTA minus Iceland
GATT	General Agreement on Tariffs and Trade
IFPRI	International Food Policy Research Institute
MTN	Multilateral trade negotiations
NICs	Newly industrializing countries
North America	Canada and the United States
Northeast Asia	Japan, Hong Kong, South Korea, Taiwan, and, in some contexts, also mainland China
Southeast Asia	The six member countries of ASEAN and, in some contexts, also the centrally planned economies of Indo-China
Western Europe	EC-12 plus EFTA-5
Uruguay Round	The eighth round of multilateral trade negotiations launched by the GATT in Punta del Este in September 1986 and due for completion in the early 1990s.



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