

378.794  
G43455  
WP-624

## *Working Paper Series*

WORKING PAPER NO. 624

### Hungary, Austria, and the European Community: A CGE Model of Economic Reform and Integration

by

Raul Hinojosa-Ojeda  
University of California, Los Angeles

Sherman Robinson  
University of California, Berkeley

WAITE MEMORIAL BOOK COLLECTION  
DEPT. OF AG. AND APPLIED ECONOMICS  
1994 BUFORD AVE. - 232 COB  
UNIVERSITY OF MINNESOTA  
ST. PAUL, MN 55108 U.S.A.

DEPARTMENT OF AGRICULTURAL AND  
RESOURCE ECONOMICS

BERKELEY

CALIFORNIA AGRICULTURAL EXPERIMENT STATION

*University of California*

THE UNIVERSITY OF CHICAGO  
LIBRARY  
540 EAST 57TH STREET  
CHICAGO, ILL. 60637

378.794  
643455  
WP-624

DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS  
DIVISION OF AGRICULTURE AND NATURAL RESOURCES  
UNIVERSITY OF CALIFORNIA AT BERKELEY

WORKING PAPER NO. 624

**Hungary, Austria, and the European Community:  
A CGE Model of Economic Reform and Integration**

by

Raul Hinojosa-Ojeda  
University of California, Los Angeles

Sherman Robinson  
University of California, Berkeley

Jean Tesche  
Emory University

California Agricultural Experiment Station  
Giannini Foundation of Agricultural Economics  
April 1992

## Table of Contents

1. Introduction .....	1
2. Reform and Integration: A Review of Approaches .....	3
3. Hungary in a European Context .....	5
4. The Hapsburg CGE Model .....	9
4.1 Data .....	10
4.2 Model Structure .....	11
4.4 Import Demand Equations .....	13
5. Results .....	16
5.1 Domestic restructuring .....	18
5.2 Trade Liberalization .....	20
6. Conclusion .....	21
References .....	23
Appendix: The Hapsburg (Hungary-Austria-EC) CGE Model .....	28

## Abstract

The countries of Eastern Europe are currently facing both major systemic changes and major shifts in their trade patterns as they seek increased integration with Western economies. The impact of these structural changes on Hungary is analyzed using a four-country, seven-sector, computable general equilibrium (CGE) model of Hungary, Austria, the European Community (EC), and the rest of the world. By simulating a variety of scenarios, the model is used to examine the effects of Hungary's domestic restructuring, change in trade orientation, and increased integration with Austria and the EC. Adjusting to the elimination of trade with the Ruble-area and to the restructuring of the domestic economy lead to major changes in the sectoral structure of production and to a deterioration in the international terms of trade facing Hungary. Full adjustment leads to major efficiency gains and to large increases in exports and imports. Assuming sectoral capital stocks do not change leads to incomplete adjustment, smaller increases in trade, less structural change, and much smaller efficiency gains. Increased integration with Austria, and of both countries with the EC, allows Hungary to increase exports. The impact on Hungary of increased integration with Austria and the EC is less than that from domestic restructuring and the loss of Ruble-area trade, but should significantly facilitate Hungary's adjustment process. The impact on the EC of integration with Austria and Hungary is very small.

## Acknowledgments

The research described in this paper was supported by the World Bank and the OECD Development Centre. Any views expressed in the paper are those of the authors and do not necessarily represent the views of the supporting organizations. We would also like to thank Csaba Csaki and Silvia Weyerbrock for very useful comments on an earlier draft.