

**Wilfred J. Ethier**



# **MODERN INTERNATIONAL ECONOMICS**

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*Second Edition*

**WILFRED J. ETHIER**

UNIVERSITY OF PENNSYLVANIA

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**MODERN  
INTERNATIONAL  
ECONOMICS**

Second Edition



W • W • NORTON & COMPANY

NEW YORK      LONDON

**PHOTOGRAPH CREDITS**

Historical Pictures Service (6)  
Warder Collection (61, 337)  
Swedish Information Service (102)  
Harvard University Archives (294)  
New York Public Library (337)  
Wide World Photos (367)

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**PRINTED IN THE UNITED STATES OF AMERICA.**

The text of this book is composed in Times Roman, with display type set in Eras Bold. Composition by New England Typographic Service, Inc.  
Manufacturing by Arcata Graphics/Halliday.  
Book design by Jacques Chazaud.

**Library of Congress Cataloging in Publication Data**

Ethier, Wilfred.

Modern international economics / Wilfred J. Ethier. — 2nd ed.

p. cm.

Includes bibliographies and index.

ISBN 0-393-95556-7

1. International economic relations. I. Title

HF1411.E824 1988 87-21762

337—dc19

CIP

W.W. Norton & Company, Inc., 500 Fifth Avenue, New York, N.Y. 10110  
W.W. Norton & Company, Ltd., 10 Coptic Street, London WC1A 1PU

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# Preface

Beware of a thick book

—RICHARD WAGNER

International economic issues are everywhere in the news. Rumbblings (exaggerated, one hopes) of a U.S.–Japanese trade war, the plummeting dollar, and other events of the day serve to underscore the significance of the international economy in our lives. Like its predecessor, this Second Edition of *Modern International Economics* offers an up-to-date view of the issues, and, more importantly, a systematic way to analyze them.

For the most part, the Second Edition continues the aim of the First: to present the full line of international trade and finance topics at a level appropriate to conventional undergraduate courses of either one or two semesters in length. Those who used the First Edition, however, will notice several innovations. Imperfect competition and economies of scale may justify trade barriers where economists traditionally would have scoffed at them. Although this possibility was addressed in the previous edition, the very large amount of recent work calls for added emphasis: the discussion is now much more systematic, and is an integral part of virtually every chapter on trade.

Recent work by economists has also stressed the intertemporal view of the current account. This approach is now covered in both the real and monetary parts of the present edition. Discussion of some topics, such as the U.S. current-account deficit, benefit greatly from an intertemporal perspective.

While a textbook cannot compete with the daily newspaper as a source of issues, it can begin to link up the analysis with current events. I have once again tried to use the theory to illustrate the most pressing issues of the day. Perhaps most notable among the many new issues discussed in this edition are those relating to U.S.–Japanese trade and balance-of-payments difficulties.

The basic expositional approach of the First Edition has been retained, with two notable changes. First, the real and monetary portions of the book are now each self-contained. The more integrated approach of the First

Edition has become less useful in light of the growing practice of teaching independent trade and finance courses. So I have moved some macroeconomic material from the trade to the monetary part of the book, and rewritten the latter to no longer assume a knowledge of basic trade theory. Second, many who used the earlier edition strongly recommended that import demand and export supply curves replace offer curves in the treatment of trade theory. I have heeded their advice.

The presentation continues to be almost entirely verbal and geometric. More advanced or specialized material is provided by starred sections labeled “Exploring Further.” These sections contain no algebra or advanced mathematics, but they do on occasion make intensive use of geometry. They can all be skipped without loss of continuity. The mathematically trained student is directed to Appendix I, which provides a technical treatment of international trade theory, keyed to Part One of the text. A typical one-semester course would cover the unstarred sections of the core chapters (1–3, 7–9), together with whatever the instructor wishes from other chapters. A one-year course might cover the entire text and supplement it with readings. Appendix I is suitable for graduate students and more sophisticated undergraduates.

The majority of sections are followed by a selection of problems. The problems are arranged more or less in order of increasing difficulty, and especially challenging problems are distinguished by asterisks. Students should at least attempt the unstarred problems before going on to the next section. A *Study Guide* is available which contains the answers to nearly all of these problems, as well as additional problems, self-tests, detailed review of basic ideas, and review questions for every chapter in this text. I have also prepared an *Instructor's Manual* which is available from the publisher.

### Acknowledgments

The following economists read various parts of the manuscript and provided many very useful suggestions.

Christopher Bell  
Davidson College

Jorge A. Braga DeMacedo  
New University of Lisbon

Arthur I. Bloomfield  
University of Pennsylvania

Barbara J. Craig  
Virginia Polytechnic Institute  
and State University

Amy H. Dalton  
Virginia Commonwealth University

Kyung-Soo Kim  
Tulane University

Slobodan Djajic  
Graduate Institute of International  
Studies, Geneva

Richard Marston  
University of Pennsylvania

Alan V. Deardorff  
University of Michigan

Steven Matusz  
Michigan State University

Jonathan Eaton  
University of Virginia

Assaf Razin  
Tel Aviv University

Charles Engel  
University of Virginia

Raymond Riezman  
University of Iowa

Elizabeth Goldstein  
Federal Reserve Bank of N.Y.

Michael Schmid  
Universität der Bundeswehr  
Hamburg

Thomas Grennes  
North Carolina State University

John Sheahan  
Williams College

Gunvald Grønvik  
Norges Bank

Edward Tower  
Duke University

Peter Kenen  
Princeton University

Michael A. Webb  
University of Kentucky

David Wharton  
Wells College

Donald S. Lamm, Drake McFeely, and Sandy Lifland, of W. W. Norton & Company, provided valuable editorial help.

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# Introduction

International trade meaning in plain English trade between nations, it is not surprising that the term should mean something else in Political Economy.

—F. Y. EDGEWORTH

Everyone knows what international economics is all about. It is about international trade and whether we should restrict imports of Japanese automobiles or Korean shoes. It is about nagging balance-of-payments problems and spectacular foreign exchange crises. It is about the gnomes of Zurich, the sheikhs of Araby, and the millions of poor migrants who are trying to find better jobs by leaving southern Europe for the north or the Far East for the Middle East or by paying someone to smuggle them into the United States. It is about multinational corporations larger than countries, fuel bills that seem huge to those who must pay them, and automobiles that look smaller than ever before. It is about European complaints that interest rates are too high in America and American complaints that Europe is not charging us enough for her steel.

This book is about all these things and many others as well. We discuss them by developing the basic ideas of international economic theory and then putting those ideas to work. What makes international economic theory distinct from general economics? Is it perhaps really the same, except for a more cosmopolitan terminology and distinctive practical applications? To a large extent the answer is yes. The basic tools, ideas, and modes of thought of general economics are basic to this book. But there are two key aspects of the subject that make international economic theory distinct.

1. *In the world economy some markets are national while others are international.* The most important example of this feature is the assumption that the factors of production—land, labor, and capital—are perfectly mobile within nations but completely immobile between nations (national factor markets), whereas commodities can be traded both nationally and internationally (international commodity markets). This assumption has characterized international trade theory since its development by the classical economists, and the assumption will be basic to the first three chapters of this book. But of course the assumption is not true. We can all think of exceptions. Capital flows into projects around the globe—but perhaps not

into certain blocks in your town. No North American student can be blind to international human migration, yet families often refuse to leave depressed areas for more favorable regions of the same country. Our assumption, then, is not a literal description of reality, but an abstraction of an underlying tendency. As such, the assumption is useful for thought but we must not make a religion out of it. International factor mobility is consequently examined in detail in Chapter 6 and is mentioned elsewhere in the book, as are still other departures from the assumption.

2. *National sovereignty influences the character of economic activity.* This point first arises in Chapters 4 and 5, where we examine commercial policies that tax or otherwise impede commodity exchanges between countries but not within countries. Almost every nation has its coin of the realm, so that transactions between nationals involve a common currency whereas transactions between residents of different nations require one type of money to be exchanged for another. A large part of this book is concerned with issues related to the existence of independent national monetary systems.

The two features are not independent. International factor movements are certainly inhibited by national policies and by the reluctance of factor owners to expose themselves or their wealth to foreign jurisdictions.

This book first examines—in Parts One and Two—those issues that do not involve money, and then—in Parts Three and Four—those that do. In each case we first develop the basic theory (in Parts One and Three respectively). The theory is presented as a few fundamental ideas, which are developed gradually in the light of basic characteristics of the modern international economy and are linked together. Parts Two and Four respectively further exploit and apply the theory. In conclusion, Part Five serves as an overview, incorporating both monetary and nonmonetary issues.



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## Part One

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# The Pure Theory of International Trade and Its Application

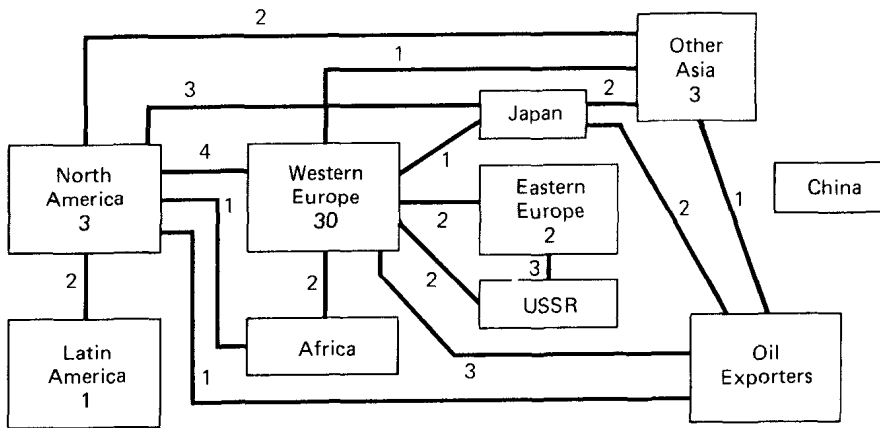
**T**he pure theory of international trade answers three sets of questions. First, why do nations exchange goods and services, who exports what to whom at what prices, and which countries produce which goods? In other words, it explains the pattern of international trade and production. Second are the welfare implications of such trade: is international trade a good thing for the world, and, if so, how are the gains distributed among nations? Do all benefit, or are some countries made better off at the expense of others? Last are the implications of trade for the domestic economy: how does trade affect the internal allocation of resources and the distribution of income?

As we study this theory, keep in mind a perspective of actual international trade. The figure below shows the network of world trade in 1984. Each number gives exports plus imports as a percentage of world exports plus imports. Thus Japanese exports to Western Europe plus Western Europe's exports to Japan equaled 1 percent of all goods exported by all nations plus all goods imported by all nations. Trade among the countries of Western Europe likewise accounted for 30 percent of world trade. Altogether, 71 percent of world trade is accounted for in the figure (the remain-



ing 29 percent is accounted for by the twenty-nine trade flows that round off to 0 percent, plus the countries, such as Australia, that are excluded).

If you study the figure for a few minutes, you will concoct hypotheses about geographic, political, and historical influences on trade flows. Note in particular the very large part of world trade accounted for by exchanges among industrialized market economies (North America, Western Europe, and Japan), the small part of world trade accounted for by the communist countries (USSR, Eastern Europe, and China), and the peripheral role played by the non-oil-exporting, less developed countries (Latin America, Africa, and Other Asia), whose modest trade tends to be concentrated with particular parts of the more developed world.



**The Network of World Trade 1984**

SOURCE: IMF, *Direction of Trade*.

Our perspective on world trade can be broadened by looking at the characteristics of specific countries. The table below lists ten countries ranked according to the amount of trade they do. Examination of the first column shows little relation between national size, as measured by population, and trade: India, the most populous country, trades the least. When size is instead measured by the gross national product, it correlates more closely with trade, but there are exceptions. Large, continental countries (U.S., USSR, Brazil) tend to trade proportionally less than smaller countries, with the European industrial nations the heaviest traders. Thus, 25 percent of the United Kingdom's national income is spent on imports, compared with 9 percent for the United States, and the average German spends almost twice as much on imported goods as does the average American. The country in the table with the least trade relative to GNP is the