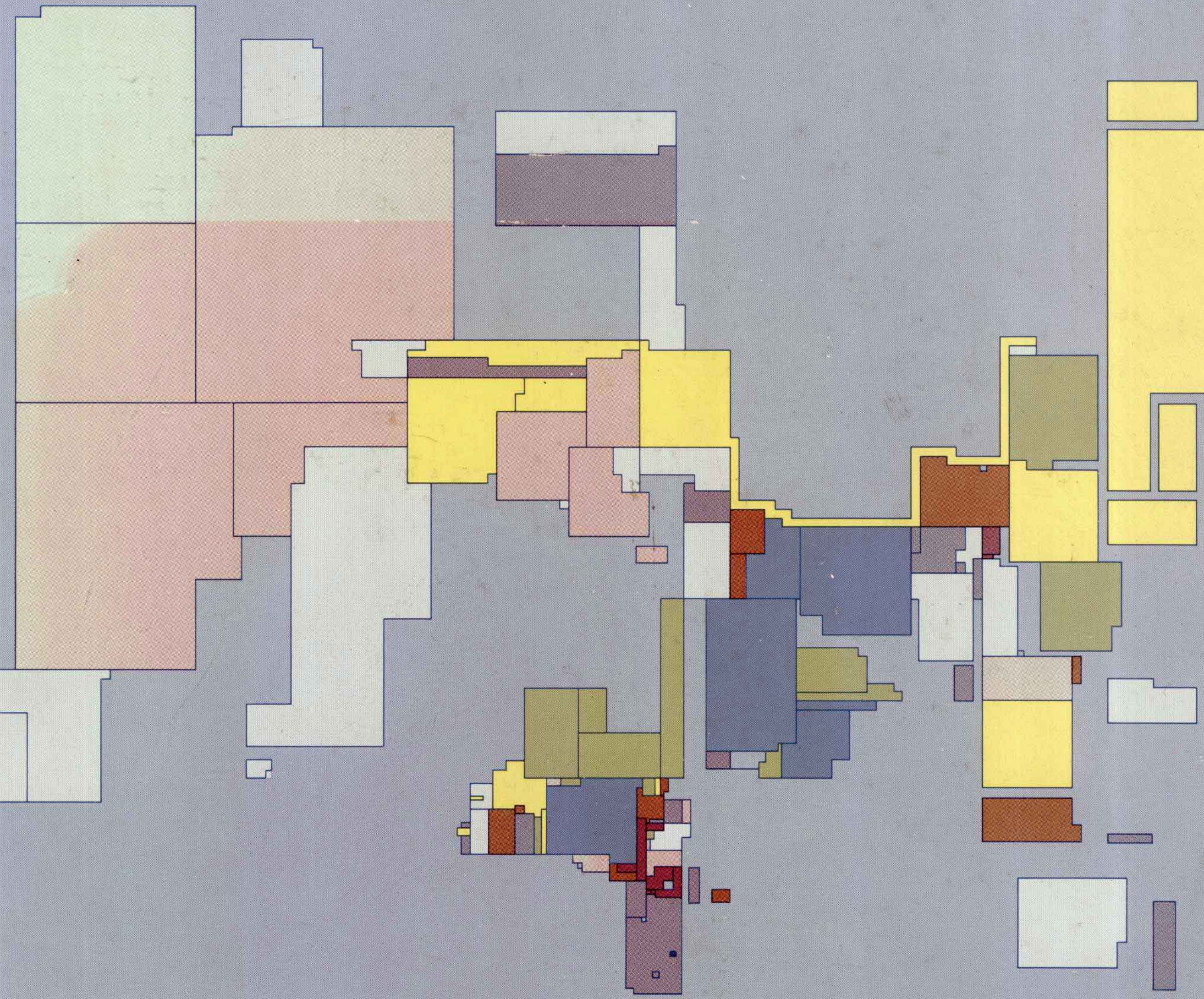
INTERNATIONAL ECONOMICS

SECOND EDITION

Robert J. Carbaugh



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INTERNATIONAL ECONOMICS

To Cathy, Julie, Mary, and Alice

PREFACE

My belief is that the best way to motivate students to learn a subject is to demonstrate how it is used in practice. The first edition of *International Economics* arose from this belief and was written to provide a serious presentation of international economic theory with an emphasis on current applications. Adopters of the first edition strongly supported integrating economic theory with current events; the second edition has been revised with an eye to improving this presentation and updating the applications.

Like its predecessor, the second edition is intended for use in a one-quarter or one-semester course for students who have no more background than principles of macro- or microeconomics. This book's strengths are its clarity and organization and its applications, which demonstrate the usefulness of theory to students. The revised and updated material in this edition emphasizes current applications of economic theory and incorporates recent theoretical and policy developments in international trade and finance.

Part 1, "International Trade Relations," has been expanded in the following ways: Chapter 1 delves more deeply into the economics-of-interdependence issue, using illustrations that show the significance of international trade and finance for the United States and other countries. Chapters 3 and 4 explore how the terms of trade can be measured and what impact economies of scale have on world trade patterns. Chapters 5–7 include empirical estimates of the welfare effects of protectionism for CB radios, oil, autos, sugar, steel, and stainless steel flatware. They also consider tariff quotas, local content requirements, export trade associations, export trading companies, services trade, and the welfare implications of the Tokyo Round of Multilateral Trade Negotiations. Chapters 8 and 9 examine the trade strategies of export promotion and import substitution for developing nations, the European Economic Community's system of variable levies and export subsidies, and counter-trade agreements, which have become popular in East-West trade.

Part 2, "International Monetary Relations," has also been expanded. Chapter 11 emphasizes the interpretation of the various balances in the U.S. balance of payments. The trade-weighted dollar and effective exchange rates are discussed in Chapter 12. Chapters 13 and 15 consider the impact of capital flows on the balance of payments and the monetary approach to balance-of-payments adjustments under fixed and floating exchange rates. The international debt problem is covered in Chapter 17.

Though instructors generally agree on the basic content of the international economics course, opinions vary widely about what arrangement of material is appropriate. This book is structured to provide considerable organizational flexibility. Though international trade relations is presented before international monetary relations, the order can be reversed by instructors who choose to start with monetary theory. Instructors can begin with Chapter 1, then move to Chapters 11–18, and conclude with Chapters 2–10. Those instructors who do not wish to cover all of the material in the book can omit Chapters 7–10 and Chapters 16–18 without loss of continuity.

Another new feature is the instructor's manual written to accompany the second edition. It contains: (1) brief answers to the end-of-chapter study questions; (2) multiple-choice questions for each chapter; and (3) a bibliography of articles taken from current publications, which provides additional real-world illustrations of the theories discussed in the book.

I am pleased to acknowledge the help of those who aided me in preparing the second edition. Helpful suggestions and often detailed reviews were provided by Byron B. Brown, Jr., Southern Oregon State College; Miltiades Chacholiades, Georgia State University; Kanjo Haitani, State University of New York, College at Fredonia; Jim Hanson, Willamette University; Douglas Jepsen, Marquette University; John McDermott, University of South Carolina; Al Maury, Texas A&I University; Gary Pickersgill, California State University at Fullerton; Anthony Scaperlanda, Northern Illinois University; and Harold Williams, Kent State University.

My thanks are especially due to my colleague Darwin Wassink, who provided a detailed review of the text and enthusiastically answered my many questions during the past four years concerning the second edition. I am also indebted to Joan Erdman, Janna Johnson, and Jeanne Wolfarth, who assisted in the manuscript's preparation, and to Don Ellickson, Lee Grugel, and Jim Wenner for their support. It has been a pleasure to work with the Wadsworth staff, especially Stephanie Surfus and Vicki Friedberg. Finally, I am grateful to my students who commented on the revisions that are included in this new edition.

I would appreciate any comments, corrections, and suggestions that readers wish to make so I can improve this text in the years ahead.

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INTERNATIONAL ECONOMICS

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THE INTERNATIONAL ECONOMY

In today's world, no nation exists in economic isolation. All aspects of a nation's economy—its industries, service sectors, levels of income and employment, living standard—are linked to the economies of its trading partners. This linkage takes the form of international movements of goods and services, labor, business enterprise, investment funds, and technology. Indeed, national economic policies cannot be formulated without evaluating their probable impacts on the economies of other countries.

The high degree of interdependence among today's economies reflects the historical evolution of the world's economic and political order. At the end of World War II, the United States was economically and politically the most powerful nation in the world. It was sometimes stated that "when the United States sneezed, the economies of other nations caught a cold." But with the passage of time, the U.S. economy became increasingly dependent on the economic activities of foreign countries. The formation of the European Economic Community (EEC) during the fifties, the rise in importance of the multinational corporation during the sixties, and the market power in world oil markets enjoyed by the Organization of Petroleum Exporting Countries (OPEC) during the seventies all resulted in the evolution of the world community into a complicated system based on a growing interdependence among nations.

In recent years, the character of global economic interdependence has become much more sophisticated. Rather than emphasizing only the economic issues of the industrial countries, world conferences are now recognizing and incorporating into their discussions the problems of the less developed countries. For resources such as energy and raw materials, the Western industrial nations rely on the less-developed countries for a portion of their consumption requirements. However, this reliance varies among countries. For Europe and Japan, dependence on foreign energy and materials is much more striking than for the United States. On the other hand, the livelihood of the developing nations' economies greatly depends on the exports of the industrial countries.

Recognizing that world economic interdependence is complex and its effects uneven, the economic community has made widespread efforts toward international cooperation. Conferences devoted to global economic issues have explored the avenues through which cooperation could be fostered between the industrial and the less-developed countries. The efforts of the less-developed countries to reap larger gains from international trade and to participate more fully in international institutions recently have been hastened by the impact of the global recession on manufacturers, industrial inflation, and the burdens of high-priced energy.

Interdependence among nations also applies in the case of foreign debt. Throughout the 1970s, the growth of such middle-income developing countries as Brazil, Taiwan, and South Korea was widely viewed as a great success story. Of particular importance was their success in increasing exports of manufactured goods. However, much of this success was due to the availability of loans from industrial nations. Based on overly optimistic expectations about export earnings and interest rates, these countries borrowed excessively to finance growth. Then, with the impact of world recession on export demand, high interest rates, and tumbling oil prices, countries such as Argentina and Mexico found they had to make annual payments of principal and interest that exceeded their total exports of goods and services. The reluctance of creditor nations to lend as much as in the past meant that debtor countries were pressed to cut imports or expand exports, in spite of a worldwide recession. It was recognized that failure to repay the debt could result in a serious disruption of the international financial system.

During the last decade, the world's market economies became integrated as never before. Exports and imports as a share of national output reached unprecedented levels for most industrial countries, while foreign investment and international lending expanded more rapidly than world trade. This closer linkage of economies can be mutually advantageous for trading nations. It permits producers in each nation to take advantage of specialization and economies of large-scale production. A nation can consume a wider variety of products at a cost less than that which could be achieved in the absence of trade. In spite of these advantages, demands have grown for protection against imports. For industrial countries, protectionist pressures have been strongest during periods of rising unemployment caused by economic recession. What is more, developing countries often maintain that the so-called liberalized trading system called for by industrial countries works to the disadvantage of developing countries. Their reason is that industrial countries are able to control the terms (that is, price) at which international trade takes place.

The economics of interdependence also has direct consequences for a student taking an introductory course in international economics. As consumers, we can be affected by changes in the international values of currencies. Should the Japanese yen or West German mark appreciate against the U.S. dollar, it would cost an American more to purchase a Japanese television set or a West German automobile. As investors, we might prefer to purchase British securities if overseas interest rates rise above U.S. levels. As members of the labor force, we might want to know whether the president plans to protect American workers producing steel or television sets from foreign competition.

In short, economic interdependence has become a complex issue in recent times, often resulting in strong and uneven impacts among nations and among sectors within a given nation. Business, labor, investors, and consumers all feel the repercussions of changing economic conditions or trade policies in other countries. Today's global economy requires cooperation on an international level to cope with the myriad issues and problems.

International Trade Patterns

For the world's economies, international trade has assumed an increasingly important role, as summarized in Table 1.1. In 1950, following five years of postwar reconstruction and development, the value of world exports was slightly less than

Table 1.1 Growth in World Trade* (billions of U.S. dollars)

Area	*1950*	*1960*	*1970*	*1980*	*1981*
World	57.9	115.5	284.8	1,868.3	1,837.2
Industrial countries	36.4	83.9	220.3	1,239.4	1,219.8
Oil-exporting countries	4.2	7.2	17.1	296.5	272.8
Nonoil developing countries	17.6	24.7	46.5	312.0	323.8

Source: International Monetary Fund, *International Financial Statistics: Supplement on Trade Statistics*, no. 4, 1982, pp. 2–3.
*Exports.

$58 billion. During the fifties, the value of world exports doubled to nearly $116 billion, growing at an average annual rate of 7.1 percent. The 1960s saw the value of world exports growing at a 9.4 percent annual rate to $285 billion. Although these increases in value were impressive, the decade of the 1970s was even more significant. The value of world exports rose 20.7 percent on an annual basis to a level of $1,868 billion. The increases in the value of exports spread across all parts of the world, although some areas enjoyed higher growth rates than others.

In terms of the volume of exports and imports, world trade has expanded in the post–World War II era, increasing from a 6.4 percent annual rate during the fifties to an 8 percent annual rate in the sixties. However, the seventies witnessed only a 5.5 percent annual increase in world trade volume as economic recession slowed down business activity. Over the 30-year period, 1950–1980, the volume of world trade expanded 6.7 percent per year. This was well above the increase in world production and several times greater than the world population growth, suggesting a growing linkage of national economies.

Table 1.2 summarizes the shares of world exports for various country groupings. From the 1950s until the middle 1970s, the nonoil developing countries' share of world exports fell from 30 percent to 15 percent. This decrease was offset by increases in the industrial countries' share of world exports. Following the rise in world oil prices, which began in late 1973, the oil-exporting countries' share of world exports increased to 15 percent by 1981, up from a 6 percent level in 1970. This increase was roughly balanced by a reduction in the industrial countries' share of the world export market.

Table 1.3 gives a more detailed breakdown of world export shares. From 1960 to 1982, the U.S. share of the world export market fell from 18.2 percent to 15.4 percent. Even more striking was the United Kingdom, whose exports

Table 1.2 Distribution of World Trade*

Year	*Industrial Countries (percent)*	*Oil-Exporting Countries (percent)*	*Nonoil Developing Countries (percent)*
1950	62.9	7.3	29.8
1960	72.6	6.2	21.2
1965	74.8	6.1	19.1
1970	77.4	6.0	16.3
1975	70.7	13.9	14.7
1981	66.4	14.9	17.6

Source: International Monetary Fund, *International Financial Statistics: Supplement on Trade Statistics*, no. 4, 1982, p. vii.
*Exports.

Table 1.3 Shares of Total World Exports (percentages)

Period	*United States*	*France*	*West Germany*	*Italy*	*Nether-lands*	*United Kingdom*	*Japan*	*Canada*
1960	18.2	6.0	10.1	3.2	3.6	9.4	3.6	5.1
1970	15.4	6.4	12.1	4.7	4.2	7.0	6.9	5.9
1980	13.9	6.3	10.5	4.2	4.0	6.0	7.1	3.7
1982	15.4	5.3	10.5	4.3	3.8	5.9	8.7	4.4

Source: U.S. Department of Commerce, *International Economic Indicators*, March 1983.

as a percentage of world exports fell by about a third over the same time period. Conversely, Japan was able to more than double its share of the world export market from 1960 to 1982.

As illustrated in Table 1.4, foreign trade has become increasingly important in recent years. Before the 1970s, the growth of U.S. trade as a share of gross national product (GNP) was moderate. During the 1960s, exports' share of U.S. GNP increased from 4 percent to 4.3 percent. By 1980, this share had almost doubled to 8.2 percent. The rise in the price of oil, from approximately $3 a barrel in 1972 to almost $33 in 1980, increased the significance of trade for the U.S. economy. The payments for oil resulted in expanded flows of dollars out of the United States, which stimulated foreign demand for U.S. exports. Strong economic growth in the developing countries as a group also resulted in increases in U.S. exports, particularly in capital goods, plant, and equipment. The official dollar devaluations of 1971 and 1973, as well as the inception of managed floating exchange rates by mid-1973, helped restore more realistic currency values for the U.S. dollar, improving the competitive position of American exporters. Finally, it was in the early 1970s that the tariff reductions of the historic Kennedy Round of Multilateral Trade Negotiations were implemented, resulting in greater potential for U.S. exports.

Although the importance of trade to the American economy increased during the 1970s, the United States remains among the countries for which foreign trade plays the smallest role in the domestic economy. This is due to the vast size and wide diversity of the American economy. As illustrated in Table 1.4, other industrial countries tend to find trade representing a greater share of their

Table 1.4 Exports as a Percentage of Gross National Product

Period	*United States*	*France*	*West Germany*	*Italy*	*Nether-lands*	*United Kingdom*	*Japan*	*Canada*
1960	4.0	10.3	15.9	10.5	35.8	14.4	9.4	14.1
1970	4.3	12.8	18.5	14.2	37.1	15.8	9.5	19.6
1980	8.2	17.7	23.5	19.7	43.9	22.1	12.5	26.1
1982	6.8	17.9	26.8	20.2	48.9	20.1	13.4	25.4

Source: U.S. Department of Commerce, *International Economic Indicators*, March 1983.

domestic economic activity. Facing many of the same influences as the United States in recent years, these countries also saw increases in their rates of exports as a percentage of GNP. For some small countries, such as the Netherlands, exports account for almost half of national output. On the other hand, with the constant media attention given to the subject of Japanese exports, it may come as a surprise that Japan exported only 13 percent of its national output in 1982!

International Trade and the U.S. Economy

Table 1.5 summarizes the net positions (surplus and deficit)[1] of various U.S. trade sectors for the years 1970 and 1980. The various trade sectors have shown increases, not only in dollar terms, but also as a percentage of gross national product (GNP). As for U.S. exports, manufactured goods recently have accounted for approximately two-thirds of total foreign sales, whereas agricultural exports accounted for one-fifth of foreign sales.[2] Of growing significance has been the service sector (for example, travel and insurance). Service-sector exports as a share of U.S. GNP increased from 0.3 percent in 1970 to 1.4 percent in 1980.

Table 1.5 U.S. Trade Balances: Selected Sectors, 1980 and 1970 (billions of dollars)

Sector	*1980*	*1970*
Surplus sectors		
Agriculture	+24.3	+1.6
Crude materials and fuels, except petroleum	+14.6	+2.4
High-technology manufacturers	+39.3	+11.7
Services, including investment earnings	+36.1	+3.0
Deficit sectors		
Petroleum	−75.8	−2.3
Low-technology manufacturers	−34.8	−8.3
Consumer goods	−18.3	−4.7
Automotive products	−11.2	−2.3

Source: U.S. Trade Representative, Office of the President, *Annual Report of the President of the U.S. on the Trade Agreements Program*, 1980–1981 (Washington, D.C.: U.S. Government Printing Office), p. 25.

Table 1.5 also shows which U.S. sectors faced large trade deficits. By 1980, significant trade deficits existed in petroleum and low-technology manufacturing. The composition of U.S. imports also has changed in recent years. Petroleum imports, which accounted for 7 percent of the value of merchandise imports in 1970, increased to more than 33 percent of U.S. imports by 1980.[3] This led to a decrease in the share of U.S. imports held by other sectors, most notably agricultural products.

Although the U.S. economy is relatively insulated from foreign trade compared with other industrial nations, foreign trade has significant impacts on certain sectors of the economy. For American manufacturers, exports constituted 13.4 percent of total sales (domestic sales plus foreign sales) in 1981. Industries with the highest dollar value of exports included machinery, transportation equipment, chemicals, primary metals, and electric equipment. Table 1.6 identifies leading American exporters in 1981. For firms such as Boeing Inc., whose exports constitute more than two-fifths of total sales, foreign economic conditions play a key role in the firm's profitability.

Exports also influence domestic employment levels. There were 4.8 million jobs in the United States associated with exports of manufactured goods in 1981. These jobs constituted 4.7 percent of the nation's total work force. Within the manufacturing sector alone, exports accounted for 12.8 percent of total manufacturing employment. In addition, there were 2.2 million employees in non-manufacturing industries that supply materials and services that support manufactured exports. In 1981, California led the states with the