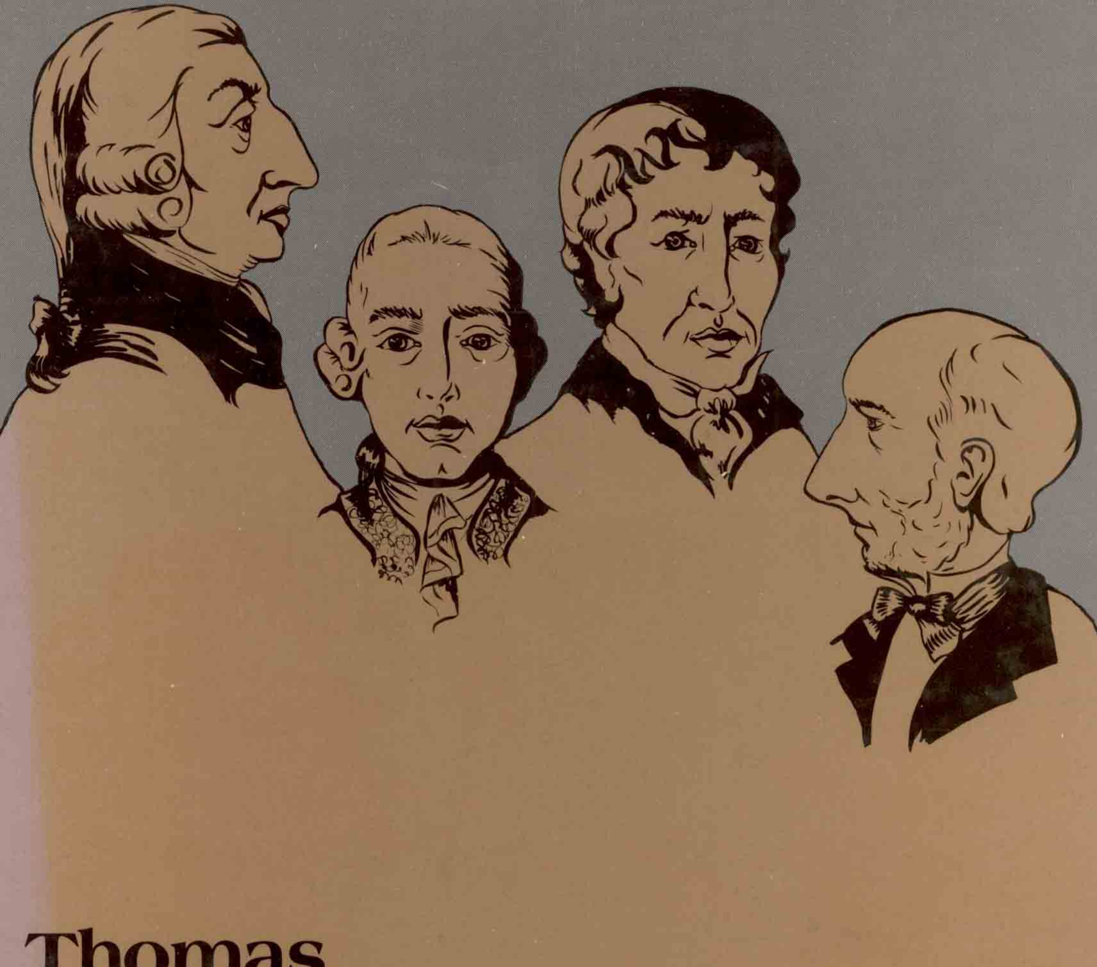

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PREFACE

This book is an introduction to the subject of international economics. The reader is assumed to have had a course in the principles of economics. All the major topics in international trade and international finance are discussed. This text would be an appropriate textbook in a one-semester college course. It could also be combined with supplementary readings in a two-semester course. The purpose of *International Economics* is to help the student to understand events in the international economy. Principles intended to be a guide to the real world are followed by frequent examples. Extensive economic data are presented, and current and historical international institutions are described.

A fundamental premise of this text is that theory and facts are inseparable. Facts do not interpret themselves, and the validity of theories cannot be determined without consulting facts. Each chapter presents theoretical material and attempts to apply the principles to economic problems. *Part I* consists of the first 13 chapters, which deal with international trade. They treat the traditional pure or barter theory that largely abstracts from the use of money in exchange. *Part II*, which consists of Chapters 14 through 22, emphasizes international monetary economics.

There is an inevitable lag between developments in the literature in professional journals and changes in textbook discussions of comparable topics. Because of developments in recent research, the gap between textbooks and journals has greatly widened in the subject of international finance. A major goal of Part II is to narrow this gap. This text employs both partial and general equilibrium analysis. However, the applied nature of the book has led to a more extensive and consistent use of supply and demand diagrams than is the case in some other books. Readers interested in more advanced or more detailed literature may consult the general references following Chapter 1 or specific references following the appropriate chapter. Major sources of international economic data are listed at the end of Chapter 1.

Many useful comments were made by my colleagues at North Carolina State University, by Donald McCrickard, and by anonymous reviewers. The manuscript was ably typed by Robin Kueffer and Kay Jones.

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CHAPTER ONE INTRODUCTION

1.1 THE SUBJECT OF INTERNATIONAL ECONOMICS

International economics is the study of trade among nations. It includes the exchange of goods and services and the international movement of factors of production. Trade is closely related to the concept of specialization. A country is self-sufficient if its residents produce exactly the same goods that they consume. The condition of self-sufficiency logically precludes trade with the rest of the world. Specialization is the opposite of self-sufficiency. It means that residents restrict production to certain goods, while relying on foreigners to supply them with other goods. International trade consists of each country's exchanging part of its specialized production for the specialties of its trading partners. Trade can be thought of as indirect production. For example, an additional unit of coffee can be produced directly by moving factors of production from growing corn to growing coffee. The opportunity to trade also permits indirect production whereby coffee can be obtained by producing additional corn and exchanging it for coffee. The choice between direct and indirect production can be made on the basis of relative cost. Trade and specialization, also called division of labor, are inextricably linked. The same forces that determine the pattern of trade simultaneously determine the international pattern of production, employment, and consumption. Trade is a mechanism that increases the interdependence of world economies. Interdependence increases world income, but it also makes producers and consumers vulnerable to a disruption of the normal pattern of trade.

The profitability of trade is based on the existence of differences between trading partners. The principles of international trade also apply to trade between regions of a country, trade between households and firms, and even trade within households. In traditional households, husbands specialized in employment outside the home, while wives specialized in managing the home and caring for children. In recent years, this pattern of household specialization has changed. Women's participation in the labor force has increased sharply, women have entered traditionally male occupations, and the birth rate has declined. Differences between the economic behavior of men and women have declined, and specialization within the household has changed. There are many interesting aspects of the economics of the family, some of which can be analyzed in terms of the same principles that are applicable to international trade.

Some relevant issues are (1) Should each family member perform the same economic tasks or should they specialize? (2) If specialization is chosen, how should tasks be assigned to different members? (3) How is family specialization affected by the prospect of family dissolution due to death or divorce? Some closely analogous issues will be considered in analyzing trade among nations. International economics is merely an application of the general principles of economics to the world trade situation.

International trade is a substitute for international migration and international investment. Labor and capital are employed in production, and products can be thought of as embodying the services of factors of production. Importing labor-intensive goods is an indirect way to import the services of labor. Exporting capital-intensive goods is an indirect way to export the services of capital. For example, wages are lower in Mexico than in the United States. Exports of labor-intensive products from Mexico are a substitute for emigration of workers from Mexico to the United States. The erection of trade barriers by the United States increases the incentive for Mexican workers to emigrate. Similarly, U.S. machinery exports to Mexico are a substitute for direct investment in Mexico by U.S. firms. Protectionist trade policies by Mexico increase the profitability of foreign investment in that country. Thus, trade policies between countries are inseparable from migration and international investment policies. Substitution between mobility of goods and mobility of factors of production illustrates the important interdependence between product and factor markets in the world economy.

All trade is based on differences in cost or demand between trading partners. In this respect, international trade is not fundamentally different from interregional trade. The traditional reasons for treating international economics as a separate subject from interregional trade are the following:

1. Factors of production are more mobile within a country than between countries.
2. Knowledge of technology is more uniform within a country than between countries.
3. Governments tend to impose greater trade barriers between countries than between regions.

4. Laws, regulations, and taxes affecting production and consumption are more uniform within countries than between countries.
5. Interregional trade nearly always involves a single currency, but international trade usually involves two or more different currencies.
6. Language and culture are more uniform within countries than between countries.

Thus, trade between New York and California is similar in some ways to trade between New York and Mexico, but in other respects it is quite different. Tariffs, capital controls, immigration barriers, tax differences, language, foreign exchange risk, and technological differences are all factors that make trade between countries different from trade between regions.

Whether a given transaction is classified as international trade or domestic trade depends on the location of national borders. New countries are formed as regions separate from larger units. Old countries lose their separate identity as a result of political union. National borders also change as a result of war or purchase of territory. The original 13 United States have grown to 50 states, which include some territory that previously belonged to England, France, Spain, Mexico, and Russia. Puerto Rico and the U.S. Virgin Islands have territorial status, but Commerce Department officials have vacillated about whether oil brought in from the Virgin Islands is imported or domestic. The United Kingdom of England, Scotland, Wales, and Northern Ireland was not always united, and separatist movements threaten the current union. Many modern nation states did not become unified until the nineteenth century. Unification transformed some international trade into interregional trade. For example, trade between Prussia and Bavaria was once international trade, but the unification of Germany transformed it into internal trade. Dividing the country into West and East Germany following World War II again made commerce between Prussia and Bavaria part of international trade.

The European Economic Community is an ambitious attempt to convert 10 independent nations into a single economic unit. The Community has already abolished nearly all of the barriers to trade and factor mobility among member states, and a program to adopt a single currency is underway. If full economic union is achieved, a large volume of international trade will become interregional trade. The unification movement reduced the number of autonomous political units in the world, but the demise of colonialism since World War II has increased the number of separate countries.

Although some governments continue to restrict domestic trade, internal trade is generally freer than international trade. Since the rise of the modern nation state has resulted in the elimination of many trade barriers between smaller political units, there is some concern that the recent proliferation of small countries may increase the number of barriers to world trade. The decline of colonialism has increased the number of independent nation states from 70 at the close of World War II to more than 140 at the beginning of 1981. The precise number of countries depends on the authority being consulted, but the U.S. State Department acknowledged in 1981 the existence of 165 independent countries, and the U.S. government maintained diplomatic relations with 148 of them. An example of a dispute that affects the numbers is the annexation of Lithuania, Latvia, and Estonia by the USSR, which is not recognized by the United States. The International Monetary Fund had 143 members at the end of 1981, and the United Nations had 154 members.

The size of countries, measured by population or area, varies greatly. Countries range in population from the People's Republic of China, with approximately 1 billion people (nearly 25 percent of the world's population), to Tuvalu, an island in the south Pacific Ocean with a population of 6,000 people. The country of Monaco has a smaller area than Tuvalu, but it has 26,000 people. The area for selected countries is shown in Table 1-1. Among the smaller countries are Luxembourg, Hong Kong, and the United Arab Emirates with less than 1,000 square miles each. The USSR is by far the largest country (8,650 million square miles). Other countries with more than 3 million square miles are Canada, China, the United States, and Brazil. In these large countries, trade among regions with diverse climate and terrain may substitute for international trade. Similarly, countries with large populations and incomes can obtain the economies of large-scale production in the domestic market that smaller economies can obtain only through international trade. Thus, international trade may be less important for large countries than for small countries.

The determination of national borders is only one way in which governments affect international trade. Government policies with respect to tariffs, foreign exchange rates, taxation, spending, money, and regulation can all influence trade in important ways. National governments are also a major source of statistics related to international trade. Although international agencies publish trade data, virtually all the information is obtained from national government sources.

1.2 BASIC FEATURES OF INTERNATIONAL TRADE

The importance of international trade varies substantially among countries. A closed economy is one that does not trade. A conventional measure of openness is the ratio of exports of goods and services to gross domestic product.[1] This index of openness is shown for selected countries in Table 1-1. It varies from more than 80 percent for Luxembourg to less than 1 percent for the USSR and China. Differences in the relative importance of trade are partly explained by each country's size. As previously mentioned, countries with large area may

[1]In most cases the ratio of imports to gross national product (GNP) gives approximately the same results. If there is a large difference between a country's imports and exports, the average of the two may be a more appropriate measure. Gross domestic product (GDP) is equal to gross national product minus net factor payments from abroad. GDP is used because of its greater availability.

TABLE 1-1 Exports, Gross Domestic Product, and Area of Selected Countries, 1980

COUNTRY	EXPORTS DIVIDED BY GROSS DOMESTIC PRODUCT	AREA (THOUSANDS OF SQUARE MILES)
Luxembourg	85%	1
Kuwait	84	8
Hong Kong	74	1*
United Arab Emirates	72	1*
Saudi Arabia	68	850
Taiwan	58	14
Iraq	58	116
Libya	57	680
Ireland	55	27
The Netherlands	55	13
Belgium	55	12
Israel	49	8
Norway	48	125
Panama	40	29
Austria	39	32
Korea	36	36
Ivory Coast	37	183
South Africa	36	473
Switzerland	35	16
Nigeria	26	356
Iran	31	628
Indonesia	33	735
Sweden	31	173
Denmark	23	17
West Germany	29	96
Canada	29	3,852
Kenya	26	220
Egypt	26	386
New Zealand	29	104
United Kingdom	28	94
Italy	23	116
Chile	23	286
France	21	213
Philippines	20	116
Greece	19	51
Australia	18	2,974
Spain	15	195
Japan	13	143
Mexico	12	760
Pakistan	13	364
Argentina	12	1,078
Brazil	7	3,286

TABLE 1-1 Exports, Gross Domestic Product, and Area of Selected Countries, 1980 *(Continued)*

COUNTRY	EXPORTS DIVIDED BY GROSS DOMESTIC PRODUCT	AREA (THOUSANDS OF SQUARE MILES)
India	7	1,197
Turkey	7	301
United States	10	3,615
USSR	1†	8,650
China	1†	3,705

*Less than 1,000 square miles.

†Less than 1%.

Source: International Monetary Fund, *International Financial Statistics Yearbook, 1981*, published by IMF, Washington, D.C., and *Statistical Abstract of the United States*, published by the U.S. Government Printing Office, Washington, D.C.

substitute domestic trade between diverse regions for international trade. Most of the countries for which exports are less than 10 percent of gross domestic product (GDP) have more than 1 million square miles. This group includes the United States, Brazil, India, and Argentina. Conversely, most of the extremely open economies are small countries. All the countries for which exports are more than 50 percent of GDP are extremely small, except for the specialized oil exporters, namely, Saudi Arabia, Libya, and Iraq.

With the exception of oil exporting countries (e.g., Norway, Nigeria, and Iran), Table 1-1 shows that the openness of a country is inversely related to its size. In the exceptional cases, petroleum production is a large fraction of GDP, and since most of it is exported, the country is more open. The significance of oil has increased dramatically since the sharp price increases of 1974 and 1980. These events increased both the real income and the openness of the oil exporting countries.

Although the ratio of exports to GDP is a convenient measure of openness, it understates the importance of trade to a country. International conditions affect the prices of domestic substitutes for imports and exports as well as the traded goods themselves. If foreign conditions lower the prices of imported oil, steel, and automobiles, then the prices of substitute goods produced in the United States will also decline. Even if the import share in these markets is only 25 percent, 100 percent of the prices will be affected by international trade.

The concept of an importable is an attempt to represent the pervasive effect of imports. Importables are the sum of imports and domestic substitutes for imports. Thus, 100 percent of automobiles are importables even if only 25 percent are imports. Employees and owners of General Motors, Ford Motor