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# THE INTERNATIONAL ECONOMY

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SECOND EDITION

PETER B. KENEN

# **THE INTERNATIONAL ECONOMY**

Second Edition

**Peter B. Kenen**

*PRINCETON UNIVERSITY*



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# PREFACE

This book grew out of another. The earlier book, *International Economics*, was published by Prentice Hall in 1964 and went through three editions (the last one coauthored by Raymond Lubitz). It was widely used but sometimes criticized because it was too difficult for elementary courses and too brief for intermediate courses. I began work on the new book expecting to fill gaps but to keep it shorter than most other texts. Each chapter turned into three, however, as I filled more gaps and carried the analysis further. I can only hope that quality has kept pace with quantity.

The book is designed for undergraduates. Those who have taken intermediate courses in micro and macro theory (or are taking them concurrently) will not find it difficult. Those who have less preparation will have to work harder, but they will find that new concepts and tools are explained as they are introduced. Mathematical sophistication is not needed. There is not much algebra in the text. I rely mainly on diagrams. When algebra is used to prove a point, moreover, it is put in notes that accompany the text but do not interrupt it. (Algebra is used extensively in the presentation of national-income analysis, but it is the sort that students usually encounter in the principles course.) Some of the diagrams are complicated, because trade problems are intrinsically complicated; they involve two countries and commodities, and sometimes involve two factors of production. But I have tried to lead the reader through them carefully,

even a bit tediously. Furthermore, I have tried to follow the advice of my own students, who urged me not to introduce a diagram unless I will use it more than once.

Empirical evidence has been combined with theory: examples are found in Chapters 3 and 4, on the Ricardian and Heckscher–Ohlin models, and in Chapters 16 and 17, on the efficiency of foreign-exchange markets and the validity of purchasing-power parity. Three chapters deal with history and institutions: Chapter 11 reviews the history of trade policy, describes the General Agreement on Tariffs and Trade (GATT), and discusses current issues. Chapter 19 reviews the history of the monetary system, describes the International Monetary Fund (IMF), and examines alternative exchange-rate arrangements in light of recent experience. Finally, Chapter 20 deals with the management of the international economy; it reexamines the roles of the GATT and the IMF, explores the problems of coordinating national policies, and touches on other current concerns, including the prudential regulation of multinational banking and third-world debt.

Some things are left out. I have not dealt thoroughly with North–South relations and have dropped the brief discussion of East–West trade that appeared in the first edition, to make room for other trade-policy problems, including the liberalization of trade in services. I have not given much attention to current work on rational expectations and exchange-rate behavior. But I have filled one gap in the first edition by adding a chapter on imperfect competition and international trade.

Those who want to use this book in a one-term course may have to omit some chapters, but I have tried to make that easier by rearranging the presentation of trade theory. In the first edition, two trade models featuring factor substitution were presented in a single chapter, and the materials on trade and growth were presented in another chapter. In this edition, each model is presented in a separate chapter, and its use is illustrated by analyzing trade and growth. It is therefore possible to introduce the modified Ricardian (specific-factor) model, which is used extensively in later chapters, and to illustrate the links between trade and growth, without going through the general Heckscher–Ohlin model.

If I were giving a short course, I would omit Chapters 6, 7, and 8, on the general Heckscher–Ohlin model, imperfect competition, and factor movements, and Chapters 16, 17, and 18, on expectations and capital movements, the monetary model, and the portfolio-balance model. Instructors should decide from the start whether to assign the algebraic notes. They are interdependent, because the notation developed in one is used again in others without repeating definitions.

I am grateful to students and colleagues at Princeton University who used the first edition of this text and made a great many helpful suggestions. I am also grateful to colleagues who read parts of the original and revised manuscripts and helped me to improve the book, especially to Polly Allen, Robert Baldwin, Patrick Conway, Richard Cooper, Alan

Deardorff, Avinash Dixit, Gene Grossman, Anne Krueger, Harvey Lapan, and Robert Solomon. Two graduate students at Princeton deserve special thanks: Judith McDonald for working carefully through the algebraic notes and fixing some of my mistakes, and John Leahy for hunting down the numbers needed to update the book and suggesting a number of improvements. Readers should thank my daughter, Judy, for the typographical errors they do not find, but should blame me for those that remain.

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# CHAPTER 1 THE NATION AS AN ECONOMIC UNIT

## ORIGINS AND ISSUES

The study of international trade and finance is among the oldest specialties in economics. It was conceived in the sixteenth century, a lusty child of Europe's passion for Spanish gold, and grew to maturity in the turbulent years that witnessed the emergence of modern nation-states. It attracted the leading economists of the eighteenth and nineteenth centuries, including David Hume, Adam Smith, David Ricardo, and John Stuart Mill, whose work supplied a legacy of insight and concepts that continue to guide economists today. In fact, their work on international economic problems produced some of the most important tools of analysis used by modern economics. An early version of the "quantity theory of money" was developed by Hume to show how foreign trade affects the level of domestic prices. The first full

formulation of the "law of supply and demand" was developed by Mill to explain price determination in international markets. Many recipients of the Nobel Prize in economics have studied international problems, including Paul Samuelson, Wassily Leontief, Bertil Ohlin, and James Meade.

International economics flourishes today because the facts and issues that brought it into being continue to demand attention. By participating in international trade, each national economy is able to use its resources most efficiently—to concentrate on those activities it is best suited to conduct—and to reap significant economies of scale. In consequence, trade raises real income in each country. These are the same sorts of gains that we reap as individuals by specializing in a single occupation rather than meeting all our needs by producing our own food, clothing, and so on. Trade is beneficial in other ways. Improvements in

technology originating in one country are shared automatically with other countries. They are shared directly when they are embodied in new capital equipment that is sold on world markets. They are shared indirectly when they raise efficiency or product quality in the export industries of the country in which they originate.

By participating in international capital markets, countries can grow faster. By borrowing on those markets to supplement domestic savings, they are able to raise their rates of capital formation. The United States borrowed abroad in the nineteenth century, and many less-developed countries do so now. By lending on those markets, countries can put their savings to work more productively than they can at home. International trade in claims and liabilities raises the efficiency with which an economy can allocate resources across time, just as trade in goods and services raises the efficiency with which it can allocate resources at each point in time.

Foreign trade and finance pose hard problems as well as opportunities. They raise complex economic problems, because they affect the internal behavior of each national economy. They raise delicate political problems, because they affect relations among governments.

By affecting the allocation of domestic resources, trade affects the distribution of domestic income. Changes in the level or composition of a country's trade can call for large shifts in resources and thus redistribute incomes. The astonishing growth of the Japanese economy has forced the older industrial economies of the United States and Western Europe to make adaptations affecting major industries and whole regions. This process is far from complete. The rapid growth of manufacturing in Korea, Taiwan, and other less-developed countries has required additional adaptations, not only in the older industrial countries but in Japan as well.

Events in international markets can affect levels of domestic employment, growth rates, and inflation rates. The unprecedented increase in the world price of oil that began in 1973 was an important cause of *stagflation* in oil-importing countries—the painful combination of high unemployment, slow growth, and rapid inflation. Changes in the prices of other raw materials affect the export earnings of the less-developed countries, which determine their ability to import machinery and other capital goods. Therefore, they influence the pace of development.

Commercial and financial arrangements among countries affect the functioning of domestic policies. The effectiveness of monetary policy, for example, is influenced strongly by exchange-rate arrangements. A government that tries to peg its exchange rate—to fix the price of its currency in terms of some other currency—may not be able to pursue an independent monetary policy. Changes in its money supply will spill out through its balance of payments with the outside world, and this will happen rapidly when, as now, national financial markets are closely linked. A government that allows its exchange rate to float—to be determined by supply and demand in the foreign-exchange markets—will be able to pursue an independent monetary policy. It will discover, however, that a change in its monetary policy alters its exchange rate in ways that magnify and modify the domestic impact of the policy change.

## DIMENSIONS OF POLICY INTERDEPENDENCE

The links between national economies created by trade and other international transactions produce an interdependence between national policies, even between policies designed primarily to achieve domestic goals. Policies that stimulate aggre-

gate demand in one country will increase its demand for imports, and the imports of one country are the exports of another. Therefore, those policies will stimulate demand in other countries, and their governments must then modify their policies to stabilize their economies. The money flows that take place with pegged exchange rates offer another illustration. An increase in one country's money supply that spills out through its balance of payments tends to increase other countries' money supplies, and they must then make compensatory changes in their policies to combat "imported" inflation.

These money flows do not take place when exchange rates float, but the policy interdependence crops up in another form. Exchange rates are *shared* variables. The price of the Deutsche mark in terms of the U.S. dollar defines the price of the dollar in terms of the mark. When one mark costs 50 cents, one dollar costs 2 marks. A change in one country's exchange rate translates automatically into changes in other countries' rates.

The domestic effects of a change in the exchange rate are less obvious in a large economy like that of the United States than in smaller, more open economies like those of Western Europe. Indeed, they went almost unnoticed a few years ago. When asked to rank three key prices in order of their influence on domestic production, employment, and the general price level, an American would have put the wage rate first, the price of oil next, and the exchange rate last. A German would probably have put the exchange rate first, the price of oil next, and the wage rate last.<sup>1</sup> But the foreign trade of the United States has grown

more rapidly than has its gross national product, raising the ratio of trade to output. The ratio remains much lower than in other major countries, but the U.S. economy has become more open in this and other ways, and that trend has started to influence its policies. The United States is able to pursue an independent monetary policy, because it allows its currency to float, but it cannot exercise its independence without allowing for the impact of exchange-rate changes on its own economy, the economies of other countries, and the policies of other countries. The character of policy interdependence is affected by exchange-rate arrangements and other ways in which economies are linked. The fact of interdependence is inescapable.

No government can be totally indifferent to the economic policies of other governments, and the growth of economic openness, illustrated in Table 1-1, has raised sensitivities. Governments pay close attention to each others' policies and pay attention to a wide range of policies. They watch each others' agricultural policies, which can affect world prices and supplies of food. They watch each others' energy policies, which can affect the outlook for the world price of oil. They watch each other's

**TABLE 1-1** Trends in Economic Openness:  
Averages of Exports and Imports of Goods and Services as Percentages of Gross National Product in the Seven Economic Summit Countries

Country	1965	1975	1985
Canada	19.5	24.2	28.0
France	12.1	18.1	23.7
Germany	19.0	24.9	33.1
Italy	13.4	21.7	26.8
Japan	10.3	13.7	14.5
United Kingdom	18.8	26.3	28.3
United States	4.7	8.0	8.5

Source: International Monetary Fund, *International Financial Statistics*.

<sup>1</sup>The German might have pointed out, moreover, that the price of oil in Germany depends on the exchange rate. World oil prices are quoted in dollars. Therefore, the price expressed in Deutsche marks is determined in part by the price of the dollar in terms of the mark.