# WORLD TRADE AND PAYMENTS

AN INTRODUCTION

Seventh Edition



# World Trade and Payments An Introduction

Richard E. Caves

Harvard University

Jeffrey A. Frankel

University of California, Berkeley

**Ronald W. Jones** 

University of Rochester

Executive Editor: John Greenman

Developmental Editor: Barbara Conover

Project Editor: Elizabeth LaManna Senior Designer: John Callahan Text Designer: A Good Thing Cover Designer: John Callahan Art Studio: Electra Graphics, Inc.

Electronic Production Manager: Su Levine Desktop Administrator: Laura Leever Manufacturing Manager: Willie Lane

Electronic Page Makeup: Interactive Composition Corporation

Printer and Binder: RR Donnelley & Sons Company Cover Printer: New England Book Components, Inc.

World Trade and Payments: An Introduction, Seventh Edition

Copyright ©1996 by Richard E. Caves, Jeffrey A. Frankel, and Ronald W. Jones

HarperCollins® and are registered trademarks of HarperCollins Publishers Inc.

All rights reserved. Printed in the United States of America. No part of this book may be used or reproduced in any manner whatsoever without written permission, except in the case of brief quotations embodied in critical articles and reviews. For information address HarperCollins College Publishers, 10 East 53rd Street, New York, NY 10022. For more information about any HarperCollins title, product, or resource, please visit our World Wide Web site at http://www.harpercollins.com/college.

#### Library of Congress Cataloging-in-Publication Data

Caves, Richard E.

World trade and payments: an introduction / Richard E. Caves, Jeffrey A. Frankel, Ronald W. Jones. — 7th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-673-52418-3

- 1. International trade. 2 Balance of payments. 3. Commercial policy.
- Frankel, Jeffrey A. II. Jones, Ronald Winthrop, 1931-. III. Title.

HF1379.C38 1995

382—dc20

95-263

CIP

### **Preface**

The seventh edition of World Trade and Payments arrives at a time of both triumph and tension in the world economy. The triumph lies in the sweep of an apparently effective market organization of economic activity across the trading nations of the world. Nobody expected a smooth transition for the centrally planned economies of the former Soviet Union and Eastern Europe, but the transition is making progress, bumps and all, and trade between these nations and the rest of the world (suppressed under central planning) is fast being restored. In 1992 the members of the European Union took a big step toward the elimination of remaining border restrictions and the economic unification of their national markets. The Union's membership has expanded to embrace most of Western Europe, and the Eastern European nations have begun knocking at the door. The less-developed countries have continued a decades-long trend toward reducing their restrictions on international commerce and, increasingly, have removed many other regulatory restraints that were apparently dysfunctional for their development. After a perilous journey of negotiation, the world's trading nations reached an agreement in the Uruguay Round to reduce restrictions on trade—not just conventional tariffs, but also nontariff barriers and deterrents to trade in services and foreign investment. The World Trade Organization provides a new governance structure to limit and resolve trade disputes. World capital markets grow increasingly integrated, providing new funding opportunities for borrowers and making it increasingly easy for lenders to diversify their risks internationally.

Yet beneath these triumphs there remain tensions of discontent with national and international economic performance. The United States remains fixated—inappropriately in the eyes of most economists—on its deficit in merchandise trade with Japan. Integrated international capital markets make it harder and harder for countries to implement policies to stabilize or manage their foreign exchange rates: cracks in the European Monetary System and the 1995 crisis of the Mexican peso provide dramatic examples. The Western European countries struggle with macroeconomic problems of high unemployment and central government deficits that clearly cannot be sustained without serious consequences. Despite appearances of prosperity and growth, wages and real personal incomes in some industrial countries rise slowly or even fall, generating disappointment and discontent.

The subject of international economics takes on the large task of explaining the economic mechanisms and the policy options behind all these complex developments. We claim no clairvoyance about how these issues will be resolved. We do, however, believe that students can be prepared to understand and interpret these structural changes and policy issues in the international economy along with others now unforeseen.

#### What's New in This Edition

Through this and previous editions of *World Trade and Payments* we have sought to combine clear exposition of the proven and long-lasting basic theories and analytical constructs of international trade and finance with applications that illustrate their uses. We have incorporated new theoretical developments as they have come on stream and adjusted the emphasis given to those—new or old—that seem particularly helpful to the student seeking to understand the currently high-profile issues. At the same time we have kept a place for analyses speaking to issues currently shaded from popular attention, but likely to burst forth in the future into the light of public discourse.

This general objective guides the changes that were made in this seventh edition. The basic treatment of theory has, in some parts, been completely rewritten. In particular, recent debates over regional economic integration and tariff reduction have emphasized the potential downside of freeing up trade—the possibility of causing unemployment or lowering the real incomes of some groups. This possibility is addressed very early in the book (Chapter 2), and unemployment as a possible outcome is considered in the treatment of Ricardian models. The conflict between overall gain and individual loss is stressed. As well, more emphasis is placed on growth possibilities and the crucial role that international trade can play as a country develops and raises living standards when facing competition from other countries. In Chapter 10 the treatment of multinational enterprise has been rewritten to focus more sharply on a few central issues.

Part III was extensively reorganized to provide a more integrated treatment of the theory and practice of international trade policy (trade controls and their liberalization). The analyses of trade controls in general equilibrium and partial equilibrium are now placed side by side in Chapter 11, while Chapter 12 addresses the political economy of protection, both as positive economics and as political behavior (the latter formerly was in Chapter 14). Chapter 14 focuses on the contrast between the industrial countries' cooperative efforts to liberalize trade and their individual efforts to control and restrict it. Chapter 15 analyzes the trade policy issues facing three groups of countries: those joining together in customs unions (European Union and NAFTA); the economies in transition to market organization in their domestic economies and international trade; and the fast-growing economies of Asia whose trade policies have been important to their economic successes.

Parts IV and V were completely rewritten in the fifth edition to reflect the importance of international macroeconomics and finance in the 1990s. They have undergone significant polishing. Relative to the sixth edition, Chapters 18 and 22 have each been split in half to enhance readability. Attention is given to many recent and prospective developments, including the liberalization of Japanese financial markets, portfolio investment in so-called emerging-market countries, hyperinflation in some Eastern European countries and economic shock therapy in others, the monetary unification of Germany, and the European Union's agreement on a European Economic and Monetary Union.

#### Pedagogy

Pedagogical features from previous editions of this book are retained and strengthened. Each chapter ends with a series of problems and discussion questions, as well as a list of suggestions for further reading. These readings represent either fundamental contributions or elaborations and applications that might prove useful to both student and instructor. The accompanying *Student Workbook* by Carsten Kowalczyk and Linda Tesar and updated by Eirik Evenhouse and Siobhan Reilly provides an extensive review of key concepts and contains numerous problem sets. We are pleased that David Bishop has prepared a new Instructor's Manual/Test Bank to accompany this edition.

#### Adapting the Course

World Trade and Payments is adaptable to various tracking styles. Some chapters are followed by one or more appendixes that explain specialized points or analytical constructions that some instructors might want to emphasize (but others want to avoid). Omitting any appendix will not lessen comprehension of the chapter. For instructors wanting a more advanced approach we have retained, at the back of the text, the mathematical supplements present in previous editions.

The book covers a conventional, full line of topics and, with some additional material, can serve as the basis for a full-year course at the undergraduate level or for separate semester (quarter) courses on the real and financial aspects of international trade. We have paid special attention, however, to the needs of one-semester courses. The chapters in Part I and Chapters 17, 18, and 24 and Section 20.2, provide the nucleus of a one-semester course that covers both the core of the real theory (with applications) and elements of open-economy macroeconomics and balance-of-payments adjustment. Many of the chapters outside this core are at least somewhat independent of one another, so that instructors can round out the course with selections from them (examples are Chapters 9, 10, and 15). A course in international macroeconomics might include Chapters 16 to 20 (Section 20.2) and 23 to 26, and then might emphasize Chapters 22 and 27 if the orientation is toward finance, or Chapter 21 and Section 20.3 if it is toward less-developed countries.

### Acknowledgments

As authors of a textbook in its sixth revision, we have acquired a string of debts to colleagues, students, and various helpers that stretches the bounds of memory, let alone explicit acknowledgment. We confine ourselves to thanking those who helped with the seventh edition. Suggestions for revision were received from Patrick Asea, Robert Blecker, Robert Cook, Elzbieta Czarny, Eirik Evenhouse, Joanne Feeney, Peter Frexert, Henry Goldstein, Thomas C. Lowinger, Joseph A. McKinney, William Maloney, Nadeem Naqvi, Deborah Swenson, Ed Tower, and Rolf Weder. For clerical and related assistance we thank Lynn Enright, Ann Flack, and Alan Kackmeister, and for data Peter Hooper, Carmen Reinhart, and George Taylas.

Richard E. Caves Jeffrey A. Frankel Ronald W. Jones

### Contents

Preface XV
CHAPTER 1 INTRODUCTION 1
<ul> <li>1.1 The Subject of International Economics 1</li> <li>1.2 Patterns of International Trade 5</li> <li>1.3 The Organization of This Book 7</li></ul>
PART I The Basic Trade Model 11
CHAPTER 2 COMMODITY TRADE 13
<ul> <li>2.1 The Gains from Trade 14</li> <li>2.2 Free-Trade Equilibrium 21</li> <li>2.3 Product Variety and Intra-Industry Trade 23</li> <li>2.4 Arguments about Free Trade 25</li> <li>2.5 Productivities and Trade: A Preliminary Sketch 29</li> <li>2.6 Self-Sufficiency vs. International Dependence 31  Chapter Problems 31  Suggestions for Further Reading 32</li> </ul>
Appendix: The Box Diagram and the Contract Curve 32

### Chapter 3 Production and Expanded Gains from Trade 35

- 3.1 The Production Possibilities Schedule and Autarky Equilibrium 35
- 3.2 Trade and Comparative Advantage 38
- 3.3 Scale Economies and World Trade 43

3.4 Sources of Gains from Trade: A Recapitulation 46 3.5 Free Trade and the Behavior of Import Demand 48 3.6 Summary 52 Chapter Problems 53 Suggestions for Further Reading 54 Appendix A: Constant Returns to Scale and Increasing Opportunity Costs 54 Appendix B: Increasing Returns and the Possibility of Decreasing Opportunity Costs 55 Appendix C: The Offer Curve Diagram 56	
CHAPTER 4 APPLICATIONS AND INTERPRETATIONS OF THE BASIC TRADE MODEL 59	
<ul> <li>4.1 Disturbances from Abroad and Terms of Trade 59</li> <li>4.2 Protecting Import-Competing Goods: A Sneak Preview 62</li> <li>4.3 Growth and Trade 64</li> <li>4.4 The Transfer Problem 67</li> <li>4.5 Wider Interpretations of the Basic Trade Model 71</li> <li>4.6 Trade and Market Structure 75</li> <li>4.7 Summary 76  Chapter Problems 77  Suggestions for Further Reading 78  Appendix: The Stability Issue 78</li> </ul>	
PART II Trade Patterns, Income Distribution, and Growth 8	31
CHAPTER 5 TECHNOLOGY AND THE RICARDIAN TRADE MODEL 83	
<ul> <li>5.1 Before International Trade 83</li> <li>5.2 International Trade: The Role of Comparative Costs 85</li> </ul>	

91

5.3 National and World Gains from Trade

Non-traded Commodities

5.5 5.6

5.7

5.4 International Wage Comparisons and Productivities

Productivity Shocks and Technological Spillovers

Many Commodities and Many Countries

5.8 5.9	Summary Chapter Pro	Unemploymen 102 Oblems 103 for Further Re	
Сн	APTER 6	Increasin Trade	
6.1 6.2		Returns and I tors and Econo	

## , Specific Factors, and

- 107
- oduction Possibilities 109
- 6.3 The Distribution of Income in a Closed Economy
- 6.4 Free Trade and Income Distribution 112
- Growth in the Resource Base 6.5
- 6.6 The Pattern of Trade 117
- 6.7 An Alternative Interpretation: Specific Capital
- 6.8 The Dutch Disease 119
- Summary 6.9 122 Chapter Problems 124 Suggestions for Further Reading

#### FACTOR ENDOWMENTS AND 2 × 2 HECKSCHER-CHAPTER 7 OHLIN THEORY 127

- A Preview with Rigid Technology 7.1
- 7.2 Flexible Technology and Autarky Comparisons
- 7.3 The Heckscher-Ohlin Theorem and Empirical Trade Patterns 140
- 7.4 Summary 144

Chapter Problems

Suggestions for Further Reading

Appendix A: The Production Box 148

Appendix B: Heckscher-Ohlin and Sector-Specific Models: A Temporal Relationship 149

#### CHAPTER 8 TRADE, GROWTH, AND PRODUCT VARIETY 155

- Prevalence of Intra-Industry Trade 8.1
- 8.2 Product Variety and Intra-Industry Trade 156
- 8.3 Trade Patterns: What to Produce 162
- 8.4 Concentration in Production 169
- Economic Growth and Changing Comparative Advantage 171

8.6	Summary 173 Chapter Problems 174 Suggestions for Further Reading 175
Сн	APTER 9 TRADE IN PRODUCERS' GOODS 177
9.1 9.2 9.3	Resources and Materials in International Trade 177 Intermediate Goods: Trade and Production Possibilities 181 The Newly Industrializing Countries and Footloose Production Processes 184
<ul><li>9.4</li><li>9.5</li></ul>	Footloose Inputs: The Joint Role of Comparative and Absolute Advantage 189 Summary 193
	Chapter Problems 194 Suggestions for Further Reading 195
Сна	APTER 10 INTERNATIONAL FACTOR MOVEMENTS AND MULTINATIONAL COMPANIES 197
10.1 10.2 10.3 10.4 10.5 10.6	Factor Movements: The Efficiency of World Production 197 Factor Movements: The Effect on Commodity Trade 198 Migration and Income Distribution 199 International Capital Movements: Selected Issues 202 Multinationals and Direct Foreign Investment 205 Summary 213 Chapter Problems 214 Suggestions for Further Reading 214
PA	RT III The Theory and Practice of Commercial Policy 217
Сна	APTER 11 TARIFFS AND THE NATIONAL WELFARE 219
11.1 11.2 11.3 11.4 11.5 11.6	The Tariff for a Small Country 219 The Impact of a Tariff on World and Domestic Prices 226 Tariffs and Domestic Welfare 228 Tariffs and World Welfare 230 Effective Protection 232 Summary 233 Chapter Problems 234 Suggestions for Further Reading 235 Appendix: Tariffs and the Offer Curve 235

ix

CHAPTER 12	THE POLITICAL	ECONOMY OF
	PROTECTION	239

- 12.1 The Tariff as a Device for Raising Revenue 239
- 12.2 The Tariff as a Second-Best Device 241
- 12.3 Tariffs, the Distribution of Income, and Rent-Seeking Activities 244
- 12.4 Growth, Protection, and Welfare 250
- 12.5 Protection and Unemployment 253
- 12.6 Summary 253
  Chapter Problems 254
  Suggestions for Further Reading 254

### Chapter 13 Trade Policy and Imperfect Competition 257

- 13.1 Monopoly and the Gains from Trade 257
- 13.2 Cartels and the Interests of Producing and Consuming Countries 261
- 13.3 Monopoly and Policies of Exporting and Importing Countries 264
- 13.4 Industrial Policy and Market Rivalry 272
- 13.5 Summary 277
  Chapter Problems 278
  Suggestions for Further Reading 279
  Appendix: International Duopoly and National Strategy 280

### Chapter 14 Trade Controls in Practice 283

- 14.1 Tariffs: Levels and Trends 283
- 14.2 Multilateral Tariff Reduction 285
- 14.3 The Trend Toward "Managed" Trade 288
- 14.4 Trade Policy Toward the Less-Developed Countries 299
- 14.5 Summary 302 Chapter Problems 303 Suggestions for Further Reading 304

### CHAPTER 15 REGIONAL ISSUES IN TRADE POLICY 307

- 15.1 Fundamental Effects of Trade Preferences 307
- 15.2 Preferential Arrangements in Practice 312
- 15.3 Trade Problems of the Economies in Transition 317
- 15.4 Trade and Growth: The Asian NICs 322
- 15.5 Summary 327 Chapter Problems 328 Suggestions for Further Reading 329

PART IV	Money, Income, and	
	the Balance of Payments	331

### CHAPTER 16 THE BALANCE OF PAYMENTS ACCOUNTS 333

- 16.1 Breakdown of the Accounts 335
- 16.2 How Individual Transactions Are Recorded 338
- 16.3 Double-Entry Bookkeeping 340
- 16.4 The Balances 342
- 16.5 Statistical Errors in the Payments Accounts 347
- 16.6 Summary 350
  Chapter Problems 350
  Suggestions for Further Readings 352

### Chapter 17 The Foreign Exchange Market and Trade Elasticities 353

- 17.1 The Flow of Supply and Demand for Foreign Exchange 353
- 17.2 Empirical Effects of Devaluation on the Trade Balance 361
- 17.3 Summary 364
  Chapter Problems 365
  Suggested for Further Readings 367
  Appendix: Stability of the Foreign Exchange Market 367

### Chapter 18 National Income and the Trade Balance 371

- 18.1 The Small-Country Keynesian Model 371
- 18.2 The Transfer Problem 378
- 18.3 The Two-Country Keynesian Model for a Large Country 380
- 18.4 Summary 386 Chapter Problems 387 Suggestions for Further Reading 389

### CHAPTER 19 SPENDING AND THE EXCHANGE RATE IN THE KEYNESIAN MODEL 391

- 19.1 Transmission of Disturbances 391
- 19.2 Expenditure-Switching and Expenditure-Reducing Policies 394
- 19.3 Monetary Factors 403

19.4	Summary 409	
	Chapter Problems 410	
	Suggestions for Further Readings 412	
	Appendix: The Laursen-Metzler-Harberger Effect	413

### CHAPTER 20 THE MONEY SUPPLY, THE PRICE LEVEL, AND THE BALANCE OF PAYMENTS 419

7/1	ha Nanctari	lization	Accumption	419
20.1	The Nonstern	mzauon	Assumbtion	TI
			F	

- 20.2 The Purchasing Power Parity Assumption 426
- 20.3 The Monetarist Model of the Balance of Payments 439
- 20.4 Summary 446
  Chapter Problems 447
  Suggestions for Further Reading 448
  Appendix A: Purchasing Power Parity in a Hyperinflation 449
  Appendix B: The Gold Standard 451

### CHAPTER 21 LDCs AND OTHER SMALL OPEN ECONOMIES WITH NON-TRADED GOODS 457

- 21.1 Non-Traded Goods 458
- 21.2 Expenditure and the Relative Price of Non-Traded Goods 461
- 21.3 The Monetary Approach with Non-Traded Goods 469
- 21.4 Potential Contradictory Effects of Devaluation in LDCs 475
- 21.5 Summary 481 Chapter Problems 482 Suggestions for Further Reading 483

### PART V International Financial Markets and Their Macroeconomic Implications 485

### Chapter 22 The Internationalization of Financial Markets 487

- 22.1 The Euromarkets 488
- 22.2 The Foreign Exchange Market 490
- 22.3 Liberalization 497
- 22.4 Innovation 507

22.5	Summary 519 Chapter Problems 519 Suggestions for Further Reading 520			
	Appendix: The Theory of International Capital Flows 522			
Сна	FISCAL AND MONETARY POLICY WITH PARTIAL INTERNATIONAL CAPITAL MOBILITY 529			
23.1 23.2 23.3	The Model 531 Fiscal Policy and the Degree of Capital Mobility under Fixed Rates 534 Monetary Policy and the Degree of Capital Mobility under Fixed Rates 537			
23.4 23.5 23.6 23.7	When Money Flows Are Not Sterilized 538			
	Chapter Problems 549 Suggestions for Further Reading 549 Appendix: The Assignment Problem 549			
Сна	PTER 24 FISCAL AND MONETARY POLICY UNDER MODERN FINANCIAL MARKET CONDITIONS 551			
24.1 24.2	Fiscal Policy under Floating: Effect Mitigated by Capital Mobility  Monetary Policy under Floating: An Effect Enhanced by Capital  Mobility 558			
24.3 24.4	Policy under Perfect Capital Mobility 561 Summary 569 Chapter Problems 570 Suggestions for Further Reading 571			
CHAPTER 25 INTERDEPENDENCE, AGGREGATE SUPPLY, AND POLICY COORDINATION 573				
25.1	International Transmission of Disturbances under Floating Exchange Rates 573			
25.2	The Aggregate Supply Relationship 579			
25.3 25.4	The Supply Relationship with Indexed Wages 588 Econometric Models of the Interdependent World Economy 591			
25.5	International Macroeconomic Policy Coordination 596			
25.6 25.7	Alternative Anchors for a Country's Money 601 Summary 609			
	Chapter Problems 610			

612

Suggestions for Further Reading

PART VI	The Determination of Exchan	ge
	Rates in International Asset	
	Markets	615

## CHAPTER 26 EXPECTATIONS, MONEY, AND THE DETERMINATION OF THE EXCHANGE RATE 617

- 26.1 Interest Rate Parity Conditions 617
- 26.2 The Monetarist Model of Exchange Rates, with Flexible Rates 619
- 26.3 Two Examples of the Importance of Expectations 630
- 26.4 Overshooting and the Real Exchange Rate 633
- 26.5 Two More Examples of the Importance of Expectations 646
- 26.6 Summary 650

Chapter Problems 651

Suggestions for Further Reading 652

Appendix: Changes in the Expected Money Growth Rate in the Overshooting Model of the Exchange Rate 652

### Chapter 27 Exchange Rate Forecasting and Risk 655

- 27.1 Forecasting the Spot Exchange Rate 655
- 27.2 The Role of Currency 661
- 27.3 Portfolio Balance Effects on the Exchange Rate 666
- 27.4 Summary 671 Chapter Problems 671 Suggestions for Further Reading 673

#### END-OF-BOOK SUPPLEMENTS FOR SELECTED CHAPTERS S-1

SUPPLEMENT TO CHAPTER 2: S-3

The Equations of Exchange Equilibrium

SUPPLEMENT TO CHAPTER 3: S-4

Real Incomes, Production, Elasticities, and the Trade Pattern

SUPPLEMENT TO CHAPTER 4: S-11

Stability and Comparative Statics in the Basic Trade Model

SUPPLEMENT TO CHAPTER 5: S-18

Comparative Advantage and the Assignment Problem

SUPPLEMENT TO CHAPTER 6: S-24

The Specific-Factors Model of Production

#### xiv Contents

SUPPLEMENT TO CHAPTER 7: S-30

The Two-Sector Heckscher-Ohlin Model

SUPPLEMENT TO CHAPTER 10: S-37

Foreign Investment, "Brain Drain," and the Distribution of Income

SUPPLEMENT TO CHAPTER 11: S-40

Real Incomes, Prices, and the Tariff

SUPPLEMENT TO CHAPTER 12: S-46

Tariffs, Growth, and Welfare

SUPPLEMENT TO CHAPTER 13: S-52

Imperfect Competition, Trade Restrictions, and Welfare

SUPPLEMENT TO CHAPTER 17: S-56

Proof of the Marshall-Lerner Condition

SUPPLEMENT TO CHAPTER 20: S-57

The Monetarist Two-Country Model of the Balance of Payments

SUPPLEMENT TO CHAPTER 25: S-62

Real Wage Indexation

SUPPLEMENT TO CHAPTER 26: S-66

The Monetary Model of the Exchange Rate

SUPPLEMENT TO CHAPTER 27: S-70

The Optimally Diversified Portfolio

#### INDEX I-1

to be devalued within the Exchange Rate Mechanism of the EMS. If the capital markets had been free, then franc interest rates would have risen in Paris and London equally, to compensate holders of franc assets for the anticipated loss in value. Instead, a shortage of investors willing to hold Eurofrancs caused the interest rate to be bid up offshore, while most Frenchmen—because they could not get their money out of the country fast enough—were stuck with the lower domestic rate. These episodes ended as soon as the question of devaluation was resolved, usually when the suspected EMS realignment actually took place and investors decided it was safe to hold French assets again for another year. This same pattern was evident in Italy.16

Liberalization became quite a popular trend in the 1980s. After 1986, France and Italy dismantled their capital controls. They were followed by Spain and Portugal, to meet a 1990 deadline for liberalization set by the European Community. Elsewhere in the world, Australia began the process of financial liberalization in the early 1980s and New Zealand followed suit.

Most other countries still retain serious barriers to international capital movements. Several South American countries, such as Chile, attempted international capital market liberalization in the 1970s. The experiments were largely unsuccessful, because of a wave of borrowing from abroad that turned out to be excessive.<sup>17</sup> Most of the various plans for economic reform in the republics of the former Soviet Union and Eastern Europe in the 1990s postpone to last the complete removal of restrictions on international capital flows. Nevertheless, financial liberalization around the world does seem to be the continuing trend. Many Latin American countries have removed capital controls in the 1990s.

### Changes in Tax Laws

Tax reform can have important effects on international capital flows. Countries' income tax rates may have less of an effect on international investors' decisions concerning where to put their money than one would think, however. The mere fact that the citizens of one country are taxed at a higher rate than those of another does not necessarily create an incentive for capital flows, assuming that either group of citizens is taxed at the same rate on its foreign interest earnings as on its domestic earnings. However, high corporate taxes, as opposed to personal income taxes, will reduce the return to corporate equity for any investor. As part of a tax reform, for example, the government of Japan decided to reduce its corporate income tax in

<sup>&</sup>lt;sup>16</sup> Francesco Giavazzi and Marco Pagano, "Capital Controls and the European Monetary System," Capital Controls and Foreign Exchange Legislation, Occasional Paper (Milano: Euromobiliare, 1985); and Charles Wyplosz, "Capital Flows Liberalization and the EMS: A French Perspective," European Economy, European Economic Community (June 1988).

<sup>&</sup>lt;sup>17</sup> Carlos Diaz-Alejandro, "Goodbye Financial Repression; Hello Financial Crash," Journal of Development Economics, 19 (September/October 1985).