

SEVENTH EDITION

INTERNATIONAL ECONOMICS

James Gerber



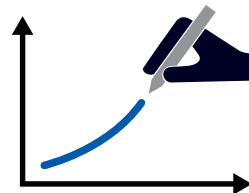
 Pearson

Practice, Engage, and Assess



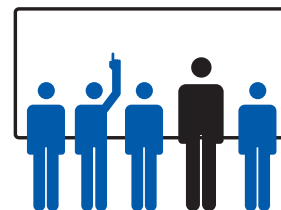
- **Enhanced eText**—The Pearson eText gives students access to their textbook anytime, anywhere. In addition to note-taking, highlighting, and bookmarking, the Pearson eText offers interactive and sharing features. Students actively read and learn through embedded and auto-graded practice, real-time data-graphs, animations, author videos, and more. Instructors can share comments or highlights, and students can add their own, for a tight community of learners in any class.

- **Practice**—Algorithmically generated homework and study plan exercises with instant feedback ensure varied and productive practice, helping students improve their understanding and prepare for quizzes and tests. Draw-graph exercises encourage students to practice the language of economics.



- **Learning Resources**—Personalized learning aids such as Help Me Solve This problem walkthroughs, Teach Me explanations of the underlying concepts, and Figure Animations provide on-demand help when students need it most.

- **Personalized Study Plan**—Assists students in monitoring their own progress by offering them a customized study plan based on Homework, Quiz, and Test results. Includes regenerated exercises with unlimited practice, as well as the opportunity to earn mastery points by completing quizzes on recommended learning objectives.



- **Digital Interactives**—Engaging assessment activities that promote critical thinking and application of key economic principles. Each Digital Interactive has progressive levels where students can explore, apply, compare, and analyze economic principles. Many Digital Interactives include real time data from FRED® that displays, in graph and table form, up-to-the-minute data on key macro variables. Digital Interactives can be assigned and graded within MyEconLab, or used as a lecture tool to encourage engagement, classroom conversation, and group work.

- **NEW: Math Review Exercises in MyEconLab**—MyEconLab now offers an array of assignable and auto-graded exercises that cover fundamental math concepts. Geared specifically toward principles and intermediate economics students, these exercises aim to increase student confidence and success in these courses. Our new Math Review is accessible from the assignment manager and contains over 150 graphing, algebra, and calculus exercises for homework, quiz, and test use.

$$P = c + dQ_s$$

with MyEconLab[®]

- **Real-Time Data Analysis Exercises**—Using current macro data to help students understand the impact of changes in economic variables, Real-Time Data Analysis Exercises communicate directly with the Federal Reserve Bank of St. Louis's FRED[®] site and update as new data are available.



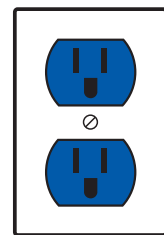
- **Current News Exercises**—Every week, current microeconomic and macroeconomic news articles or videos, with accompanying exercises, are posted to MyEconLab. Assignable and auto-graded, these multi-part exercises ask students to recognize and apply economic concepts to real-world events.

- **Experiments**—Flexible, easy-to-assign, auto-graded, and available in Single Player and Multiplayer versions, Experiments in MyEconLab make learning fun and engaging.



- **Reporting Dashboard**—View, analyze, and report learning outcomes clearly and easily. Available via the Gradebook and fully mobile-ready, the Reporting Dashboard presents student performance data at the class, section, and program levels in an accessible, visual manner.

- **LMS Integration**—Link from any LMS platform to access assignments, rosters, and resources, and synchronize MyLab grades with your LMS gradebook. For students, new direct, single sign-on provides access to all the personalized learning MyLab resources that make studying more efficient and effective.



- **Mobile Ready**—Students and instructors can access multimedia resources and complete assessments right at their fingertips, on any mobile device.

International Economics

SEVENTH EDITION

The Pearson Series in Economics

Abel/Bernanke/Croushore
*Macroeconomics**

Bade/Parkin
*Foundations of Economics**

Berck/Helfand
The Economics of the Environment

Bierman/Fernandez
Game Theory with Economic Applications

Blanchard
*Macroeconomics**

Blau/Ferber/Winkler
The Economics of Women, Men and Work

Boardman/Greenberg/Vining/Weimer
Cost-Benefit Analysis

Boyer
Principles of Transportation Economics

Branson
Macroeconomic Theory and Policy

Brock/Adams
The Structure of American Industry

Bruce
Public Finance and the American Economy

Carlton/Perloff
Modern Industrial Organization

Case/Fair/Oster
*Principles of Economics**

Caves/Frankel/Jones
World Trade and Payments: An Introduction

Chapman
Environmental Economics: Theory, Application, and Policy

Cooter/Ulen
Law & Economics

Downs
An Economic Theory of Democracy

Ehrenberg/Smith
Modern Labor Economics

Farnham
Economics for Managers

Folland/Goodman/Stano
The Economics of Health and Health Care

Fort
Sports Economics

Froyen
Macroeconomics

Fusfeld
The Age of the Economist

Gerber
*International Economics**

González-Rivera
Forecasting for Economics and Business

Gordon
*Macroeconomics**

Greene
Econometric Analysis

Gregory
Essentials of Economics

Gregory/Stuart
Russian and Soviet Economic Performance and Structure

Hartwick/Olewiler
The Economics of Natural Resource Use

Heilbroner/Milberg
The Making of the Economic Society

Heyne/Boettke/Prychitko
The Economic Way of Thinking

Hoffman/Averett
Women and the Economy: Family, Work, and Pay

Holt
Markets, Games, & Strategic Behavior

Hubbard/O'Brien
*Economics**

*Money, Banking, and the Financial System**

Hubbard/O'Brien/Rafferty
*Macroeconomics**

Hughes/Cain
American Economic History

Husted/Melvin
International Economics

Jehle/Reny
Advanced Microeconomic Theory

Johnson-Lans
A Health Economics Primer

Keat/Young
Managerial Economics

Klein
Mathematical Methods for Economics

Krugman/Obstfeld/Melitz
*International Economics: Theory and Policy**

Laidler
The Demand for Money

Leeds/von Allmen
The Economics of Sports

Leeds/von Allmen/Schiming
*Economics**

Lipsey/Ragan/Storer
*Economics**

Lynn
Economic Development: Theory and Practice for a Divided World

Miller
*Economics Today**

Understanding Modern Economics

Miller/Benjamin
The Economics of Macro Issues

Miller/Benjamin/North
The Economics of Public Issues

Mills/Hamilton
Urban Economics

Mishkin
*The Economics of Money, Banking, and Financial Markets**

*The Economics of Money, Banking, and Financial Markets, Business School Edition**

*Macroeconomics: Policy and Practice**

Murray
Econometrics: A Modern Introduction

Nafziger
The Economics of Developing Countries

O'Sullivan/Sheffrin/Perez
*Economics: Principles, Applications and Tools**

Parkin
*Economics**

Perloff
*Microeconomics**

*Microeconomics: Theory and Applications with Calculus**

Phelps
Health Economics

Pindyck/Rubinfeld
*Microeconomics**

Riddell/Shackelford/Stamos/Schneider
Economics: A Tool for Critically Understanding Society

Ritter/Silber/Udell
*Principles of Money, Banking & Financial Markets**

Roberts
The Choice: A Fable of Free Trade and Protection

Rohlf
Introduction to Economic Reasoning

Ruffin/Gregory
Principles of Economics

Sargent
Rational Expectations and Inflation

Sawyer/Sprinkle
International Economics

Scherer
Industry Structure, Strategy, and Public Policy

Schiller
The Economics of Poverty and Discrimination

Sherman
Market Regulation

Silberberg
Principles of Microeconomics

Stock/Watson
Introduction to Econometrics

Studenmund
Using Econometrics: A Practical Guide

Tietenberg/Lewis
Environmental and Natural Resource Economics

Environmental Economics and Policy

Todaro/Smith
Economic Development

Waldman
Microeconomics

Waldman/Jensen
Industrial Organization: Theory and Practice

Walters/Walters/Appel/Callahan/Centanni/Maex/O'Neill
Econversations: Today's Students Discuss Today's Issues

Weil
Economic Growth

Williamson
Macroeconomics

*denotes in MyEconLab titles

Log onto www.myeconlab.com to learn more

This page intentionally left blank

International Economics

James Gerber

San Diego State University

SEVENTH EDITION



New York, NY

For Monica and Elizabeth.

Vice President, Business Publishing: Donna Battista
Director of Portfolio Management: Adrienne D'Ambrosio
Director, Courseware Portfolio Management: Ashley Dodge
Editorial Assistant: Michelle Zeng
Senior Sponsoring Editor: Neeraj Bhalla
Vice President, Product Marketing: Roxanne McCarley
Director of Strategic Marketing: Brad Parkins
Strategic Marketing Manager: Deborah Strickland
Product Marketer: Tricia Murphy
Field Marketing Manager: Ramona Elmer
Product Marketing Assistant: Jessica Quazza
Vice President, Production and Digital Studio, Arts and Business: Etain O'Dea
Director of Production, Business: Jeff Holcomb
Managing Producer, Business: Alison Kalil

Operations Specialist: Carol Melville
Creative Director: Blair Brown
Manager, Learning Tools: Brian Surette
Content Developer, Learning Tools: Lindsey Sloan
Managing Producer, Digital Studio, Arts and Business: Diane Lombardo
Digital Studio Producer: Melissa Honig
Digital Studio Producer: Alana Coles
Digital Content Project Lead: Courtney Kamauf
Full-Service Project Management and Composition: SPi Global
Interior Design: SPi Global
Cover Design: SPi Global
Cover Art: Luciano Mortula/Shutterstock
Printer/Binder: RRD Crawfordsville
Cover Printer: Phoenix

Copyright © 2018, 2014, 2011 by Pearson Education, Inc. or its affiliates. All Rights Reserved. Manufactured in the United States of America. This publication is protected by copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise. For information regarding permissions, request forms, and the appropriate contacts within the Pearson Education Global Rights and Permissions department, please visit www.pearsoned.com/permissions/.

Acknowledgments of third-party content appear on the appropriate page within the text -OR- on page xxi, which constitutes an extension of this copyright page.

PEARSON, ALWAYS LEARNING, and MYECONLAB® are exclusive trademarks owned by Pearson Education, Inc. or its affiliates in the U.S. and/or other countries.

Unless otherwise indicated herein, any third-party trademarks, logos, or icons that may appear in this work are the property of their respective owners, and any references to third-party trademarks, logos, icons, or other trade dress are for demonstrative or descriptive purposes only. Such references are not intended to imply any sponsorship, endorsement, authorization, or promotion of Pearson's products by the owners of such marks, or any relationship between the owner and Pearson Education, Inc., or its affiliates, authors, licensees, or distributors.

Library of Congress Cataloging-in-Publication Data

Names: Gerber, James, author.

Title: International economics / James Gerber, San Diego State University.

Description: Seventh edition. | Boston: Pearson Education, [2018]

Identifiers: LCCN 2016042070 | ISBN 9780134472096 | ISBN 0134472098

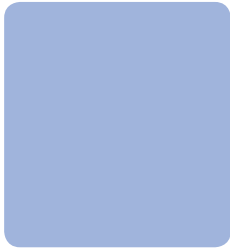
Subjects: LCSH: International economic relations. | International economic integration. | International trade. | Commercial policy. | United States—Foreign economic relations.

Classification: LCC HF1359 .G474 2018 | DDC 337—dc23 LC record available at <https://lccn.loc.gov/2016042070>

10 9 8 7 6 5 4 3 2 1



ISBN 10: 0-13-447209-8
ISBN 13: 978-0-13-447209-6



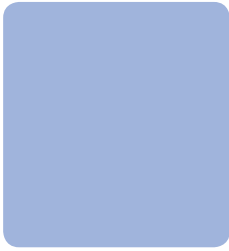
BRIEF CONTENTS

Preface xvii

PART 1	Introduction and Institutions	1
Chapter 1	An Introduction to the World Economy	2
Chapter 2	International Economic Institutions Since World War II	17
PART 2	International Trade	41
Chapter 3	Comparative Advantage and the Gains from Trade	42
Chapter 4	Comparative Advantage and Factor Endowments	65
Chapter 5	Beyond Comparative Advantage	94
Chapter 6	The Theory of Tariffs and Quotas	116
Chapter 7	Commercial Policy	138
Chapter 8	International Trade and Labor and Environmental Standards	158
PART 3	International Finance	183
Chapter 9	Trade and the Balance of Payments	184
Chapter 10	Exchange Rates and Exchange Rate Systems	214
Chapter 11	An Introduction to Open Economy Macroeconomics	250
Chapter 12	International Financial Crises	276
PART 4	Regional Issues in the Global Economy	307
Chapter 13	The United States in the World Economy	308
Chapter 14	The European Union: Many Markets into One	334
Chapter 15	Trade and Policy Reform in Latin America	365
Chapter 16	Export-Oriented Growth in East Asia	392
Chapter 17	China and India in the World Economy	421
	Glossary	447
	Index	459

Suggested Readings are available at www.pearsonhighered.com

This page intentionally left blank



CONTENTS

	Preface	xvii		
PART 1	Introduction and Institutions	1		
Chapter 1	An Introduction to the World Economy	2		
	Introduction: International Economic Integration	2		
	Elements of International Economic Integration	3		
	The Growth of World Trade	4		
	Capital and Labor Mobility	6		
	Features of Contemporary International Economic Relations	8		
	Trade and Economic Growth	10		
	Twelve Themes in International Economics	11		
	The Gains from Trade and New Trade Theory (Chapters 3, 4, and 5)	11		
	Wages, Jobs, and Protection (Chapters 3, 6, 7, and 8)	11		
	Trade Deficits (Chapters 9, 11, and 12)	12		
	Regional Trade Agreements (Chapters 2, 13, and 14)	12		
	The Resolution of Trade Conflicts (Chapters 2, 7, and 8)	12		
	The Role of International Institutions (Chapters 2, 8, and 12)	13		
	Exchange Rates and the Macroeconomy (Chapters 10 and 11)	13		
	Financial Crises and Global Contagion (Chapter 12)	13		
	Capital Flows and the Debt of Developing Countries (Chapters 2, 9, and 12)	14		
	Latin America and the World Economy (Chapter 15)	14		
	Export-Led Growth in East Asia (Chapter 16)	14		
	China and India in the World Economy (Chapter 17)	15		
	<i>Vocabulary 15 • Study Questions 15</i>			
Chapter 2	International Economic Institutions Since World War II	17		
	Introduction: International Institutions and Issues Since World War II	17		
	International Institutions	17		
	A Taxonomy of International Economic Institutions	18		
	The IMF, the World Bank, and the WTO	19		
	The IMF and World Bank	19		
	The GATT, the Uruguay Round, and the WTO	20		
	CASE STUDY: The GATT Rounds	22		
	Regional Trade Agreements	23		
	Five Types of Regional Trade Agreements	23		
	CASE STUDY: Prominent Regional Trade Agreements	24		
	Regional Trade Agreements and the WTO	26		
	For and Against RTAs	27		

The Role of International Economic Institutions	28	CASE STUDY: Changing Comparative Advantage in the Republic of Korea, 1960–2010	55
The Definition of Public Goods	29		
Maintaining Order and Reducing Uncertainty	29	Comparative Advantage and “Competitiveness”	57
CASE STUDY: Bretton Woods	31	Economic Restructuring	58
Criticism of International Institutions	33	CASE STUDY: Losing Comparative Advantage	60
Sovereignty and Transparency	33	<i>Summary 62 • Vocabulary 62 • Study Questions 63</i>	
Ideology	34		
Implementation and Adjustment Costs	35	Chapter 4 Comparative Advantage and Factor Endowments	65
CASE STUDY: China’s alternative to the IMF and World Bank: The AIIB	36	Introduction: The Determinants of Comparative Advantage	65
<i>Summary 37 • Vocabulary 38 • Study Questions 39</i>		Modern Trade Theory	66
		The HO Trade Model	66
		Gains from Trade in the HO Model	67
		Trade and Income Distribution	70
		The Stolper-Samuelson Theorem	71
		The Specific Factors Model	73
		CASE STUDY: Comparative Advantage in a Single Natural Resource	75
		Empirical Tests of the Theory of Comparative Advantage	76
		Extension of the HO Model	77
		The Product Cycle	78
		CASE STUDY: United States–China Trade	80
		Foreign Trade versus Foreign Investment	81
		Off-Shoring and Outsourcing	83
		CASE STUDY: Off-Shoring by U.S. Multinational Corporations	84
		Migration and Trade	85
		The Impact of Trade on Wages and Jobs	87
		CASE STUDY: Do Trade Statistics Give a Distorted Picture of Trade Relations? The Case of the iPhone 3G	89
		<i>Summary 90 • Vocabulary 91 • Study Questions 92</i>	
PART 2 International Trade	41		
Chapter 3 Comparative Advantage and the Gains from Trade	42		
Introduction: The Gains from Trade	42		
Adam Smith and the Attack on Economic Nationalism	42		
A Simple Model of Production and Trade	44		
Absolute Productivity Advantage and the Gains from Trade	44		
CASE STUDY: Gains from Trade in Nineteenth-Century Japan	46		
Comparative Productivity Advantage and the Gains from Trade	47		
The Production Possibilities Curve	48		
Relative Prices	49		
The Consumption Possibilities Curve	49		
The Gains from Trade	50		
Domestic Prices and the Trade Price	52		
Absolute and Comparative Productivity Advantage Contrasted	53		
Gains from Trade with No Absolute Advantage	54		

Chapter 5 Beyond Comparative Advantage	94	Effective Versus Nominal Rates of Protection	126
Introduction: More Reasons to Trade	94	CASE STUDY: The Uruguay and Doha Rounds	127
Intraindustry Trade	95	Analysis of Quotas	129
Characteristics of Intraindustry Trade	96	Types of Quotas	130
The Gains from Intraindustry Trade	98	The Effect on the Profits of Foreign Producers	130
CASE STUDY: United States and Canada Trade	100	Hidden Forms of Protection	132
Trade and Geography	101	CASE STUDY: Intellectual Property Rights and Trade	133
Geography, Transportation Costs, and Internal Economics of Scale	101	<i>Summary 135 • Vocabulary 135 • Study Questions 136</i>	
CASE STUDY: The Shifting Geography of Mexico's Manufacturing	102	Chapter 7 Commercial Policy	138
External Economies of Scale	103	Introduction: Commercial Policy, Tariffs, and Arguments for Protection	138
Trade and External Economies	104	Tariff Rates in the World's Major Traders	139
Industrial Policy	105	The Costs of Protectionism	141
Industrial Policies and Market Failure	106	The Logic of Collective Action	142
Industrial Policy Tools	108	CASE STUDY: Agricultural Subsidies	143
CASE STUDY: Clean Energy and Industrial Policy	109	Why Nations Protect Their Industries	145
Problems with Industrial Policies	110	Revenue	145
CASE STUDY: Do the WTO Rules Against Industrial Policies Hurt Developing Countries?	111	The Labor Argument	146
TRIMs Agreement	112	The Infant Industry Argument	147
SCM Agreement	112	The National Security Argument	148
TRIPS Agreement	113	The Cultural Protection Argument	148
<i>Summary 113 • Vocabulary 114 • Study Questions 114</i>		The Retaliation Argument	148
Chapter 6 The Theory of Tariffs and Quotas	116	CASE STUDY: Traditional Knowledge and Intellectual Property	149
Introduction: Tariffs and Quotas	116	The Politics of Protection in the United States	151
Analysis of a Tariff	116	Antidumping Duties	151
Consumer and Producer Surplus	117	Countervailing Duties	153
Prices, Output, and Consumption	118	Escape Clause Relief	153
Resource Allocation and Income Distribution	120	Section 301 and Special 301	154
CASE STUDY: A Comparison of Tariff Rates	122	CASE STUDY: Economic Sanctions	154
Other Potential Costs	124	<i>Summary 156 • Vocabulary 157 • Study Questions 157</i>	
The Large Country Case	125		

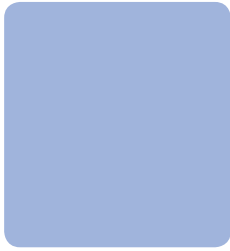
Chapter 8	International Trade and Labor and Environmental Standards	158	Introduction to the Financial Account	188
	Introduction: Income and Standards	158	Types of Financial Flows	188
	Setting Standards: Harmonization, Mutual Recognition, or Separate?	159	MyEconLab Real-time Data	189
	CASE STUDY: Income, Environment, and Society	161	Limits on Financial Flows	194
	Labor Standards	162	CASE STUDY: The Crisis of 2007–2009 and the Balance of Payments	195
	Defining Labor Standards	163	The Current Account and the Macroeconomy	196
	CASE STUDY: Child Labor	164	The National Income and Product Accounts	197
	Labor Standards and Trade	166	Are Current Account Deficits Harmful?	202
	Evidence on Low Standards as a Predatory Practice	167	CASE STUDY: Current Account Deficits in the United States	203
	CASE STUDY: The International Labour Organization	168	International Debt	205
	Trade and the Environment	170	CASE STUDY: Odious Debt	206
	Transboundary and Nontransboundary Effects	170	The International Investment Position	208
	CASE STUDY: Trade Barriers and Endangered Species	172	<i>Summary 209 • Vocabulary 210 • Study Questions 210</i>	
	Alternatives to Trade Measures	173	APPENDIX A: Measuring the International Investment Position	211
	Labels for Exports	174	APPENDIX B: Balance of Payments Data	212
	Requiring Home Country Standards	175	Bureau of Economic Analysis	212
	Increasing International Negotiations	176	International Financial Statistics	212
	CASE STUDY: Global Climate Change	177	Balance of Payments Statistics	212
	<i>Summary 179 • Vocabulary 180 • Study Questions 180</i>		APPENDIX C: A Note on Numbers	213
PART 3	International Finance	183	Chapter 10	Exchange Rates and Exchange Rate Systems
Chapter 9	Trade and the Balance of Payments	184		214
	Introduction: The Current Account	184	Introduction: Fixed, Flexible, or In-Between?	214
	The Trade Balance	185	Exchange Rates and Currency Trading	215
	The Current and Capital Account Balances	185	Reasons for Holding Foreign Currencies	216
	MyEconLab Real-time Data	187	Institutions	217
			Exchange Rate Risk	218
			The Supply and Demand for Foreign Exchange	219
			Supply and Demand with Flexible Exchange Rates	219

Exchange Rates in the Long Run	220	The Long Run	266
Exchange Rates in the Medium Run and Short Run	224	CASE STUDY: Argentina and the Limits to Macroeconomic Policy	267
CASE STUDY: The Largest Market in the World	228	Macro Policies for Current Account Imbalances	269
The Real Exchange Rate	230	The Adjustment Process	269
Alternatives to Flexible Exchange Rates	232	CASE STUDY: The Adjustment Process in the United States	271
Fixed Exchange Rate Systems	233	Macroeconomic Policy Coordination in Developed Countries	272
CASE STUDY: The End of the Bretton Woods System	236	<i>Summary 273 • Vocabulary 274 • Study Questions 275</i>	
Choosing the Right Exchange Rate System	238		
CASE STUDY: Monetary Unions	240		
Single Currency Areas	242	Chapter 12 International Financial Crises	276
Conditions for Adopting a Single Currency	243	Introduction: The Challenge to Financial Integration	276
CASE STUDY: Is the NAFTA Region an Optimal Currency Area?	245	Definition of a Financial Crisis	277
<i>Summary 246 • Vocabulary 247 • Study Questions 247</i>		Vulnerabilities, Triggers, and Contagion	279
APPENDIX: The Interest Rate Parity Condition	248	Vulnerability: Economic Imbalances	280
		Vulnerability: Volatile Capital Flows	281
Chapter 11 An Introduction to Open Economy Macroeconomics	250	How Crises Become International: Contagion	282
Introduction: The Macroeconomy in a Global Setting	250	CASE STUDY: The Mexican Peso Crisis of 1994 and 1995	283
Aggregate Demand and Aggregate Supply	251	Domestic Issues in Crisis Avoidance	286
Fiscal and Monetary Policies	256	Moral Hazard and Financial Sector Regulation	287
Fiscal Policy	256	Exchange Rate Policy	288
Monetary Policy	257	Capital Controls	288
CASE STUDY: Fiscal and Monetary Policy during the Great Depression	259	CASE STUDY: The Asian Crisis of 1997 and 1998	290
Current Account Balances Revisited	262	Domestic Policies for Crisis Management	294
Fiscal and Monetary Policies, Interest Rates, and Exchange Rates	263	Reform of the International Financial Architecture	295
Fiscal and Monetary Policy and the Current Account	264	A Lender of Last Resort	296
		Conditionality	297
		Reform Urgency	298

CASE STUDY: The Global Crisis of 2007	299		
<i>Summary 302 • Vocabulary 304 • Study Questions 304</i>			
PART 4 Regional Issues in the Global Economy	307		
Chapter 13 The United States in the World Economy	308		
Introduction: A Changing World Economy	308		
Background and Context	309		
The Shifting Focus of U.S. Trade Relations	310		
CASE STUDY: Manufacturing in the United States	311		
The Nafta Model	314		
Demographic and Economic Characteristics of North America	314		
Canada–U.S. Trade Relations	315		
Mexican Economic Reforms	317		
The North American Free Trade Agreement	319		
Two NAFTA-Specific Issues	320		
CASE STUDY: Ejidos, Agriculture, and NAFTA in Mexico	322		
New and Old Agreements	324		
Labor and Environmental Standards	325		
Investor-State Relations	327		
Jobs and Trade Agreements	328		
CASE STUDY: The African Growth and Opportunity Act	330		
<i>Summary 331 • Vocabulary 332 • Study Questions 333</i>			
Chapter 14 The European Union: Many Markets Into One	334		
Introduction: The European Union	334		
The Size of the European Market	336		
The European Union and its Predecessors	337		
The Treaty of Rome	338		
Institutional Structure	338		
Deepening and Widening the Community in the 1970s and 1980s	340		
Before the Euro	340		
The Second Wave of Deepening: The Single European Act	342		
CASE STUDY: The Schengen Agreement	343		
The Delors Report	344		
Forecasts of the Gains from the Single European Act	345		
Problems in the Implementation of the SEA	346		
CASE STUDY: The Erasmus+ Program and Higher Education	348		
The Third Wave of Deepening: The Maastricht Treaty	349		
Monetary Union and the Euro	350		
Costs and Benefits of Monetary Union	351		
The Political Economy of the Euro	353		
CASE STUDY: The Financial Crisis of 2007–2009 and the Euro	354		
Widening the European Union	358		
New Members	358		
CASE STUDY: Spain’s Switch from Emigration to Immigration	359		
The Demographic Challenge of the Future	360		
<i>Summary 362 • Vocabulary 363 • Study Questions 363</i>			
Chapter 15 Trade and Policy Reform in Latin America	365		
Introduction: Defining a “Latin American” Economy	365		
Population, Income, and Economic Growth	366		

Import Substitution Industrialization	368	Fiscal Discipline and Business– Government Relations	403
Origins and Goals of ISI	368	CASE STUDY: Doing Business in the Export Oriented Asian Economies	403
Criticisms of ISI	371	Avoiding Rent Seeking	405
CASE STUDY: ISI in Mexico	372	CASE STUDY: Were East Asian Economies Open?	407
Macroeconomic Instability and Economic Populism	374	The Role of Industrial Policies	409
Populism in Latin America	375	Targeting Specific Industries	409
CASE STUDY: Economic Populism in Peru, 1985–1990	376	Did Industrial Policies Work?	410
The Debt Crisis of the 1980s	377	CASE STUDY: HCI in Korea	412
Proximate Causes of the Debt Crisis	377	The Role of Manufactured Exports	413
Responses to the Debt Crisis	378	The Connections between Growth and Exports	413
Neoliberal Policy Reform and the Washington Consensus	381	Is Export Promotion a Good Model for Other Regions?	415
Stabilization Policies to Control Inflation	381	CASE STUDY: Asian Trade Blocs	416
Structural Reform and Open Trade	383	Is There an Asian Model of Economic Growth?	417
CASE STUDY: Regional Trade Blocs in Latin America	384	<i>Summary 419 • Vocabulary 420 •</i> <i>Study Questions 420</i>	
The Next Generation of Reforms	386	Chapter 17 China and India in the World Economy	421
CASE STUDY: The Chilean Model	387	Introduction: New Challenges	421
<i>Summary 389 • Vocabulary 390 •</i> <i>Study Questions 390</i>		Demographic and Economic Characteristics	422
Chapter 16 Export-Oriented Growth in East Asia	392	Economic Reform in China and India	426
Introduction: High-Growth Asian Economies	392	The Reform Process in China	427
Population, Income, and Economic Growth	394	Indian Economic Reforms	428
A Note on Hong Kong	396	Shifting Comparative Advantages	429
General Characteristics of Growth	396	CASE STUDY: Why Did the USSR Collapse and China Succeed?	431
Shared Growth	396	China and India in the World Economy	432
Rapid Accumulation of Physical and Human Capital	397	Chinese and Indian Trade Patterns	433
Rapid Growth of Manufactured Exports	398	Tariffs and Protection	434
Stable Macroeconomic Environments	399	Current Account Balances	435
The Institutional Environment	400	Looking Forward	437
CASE STUDY: Worldwide Governance Indicators	401	Four Issues	439
		Services	439

Manufacturing	440	<i>Summary 444 • Vocabulary 445 •</i>
Resources	441	<i>Study Questions 445</i>
Multilateral Institutions	441	
Unresolved Issues	442	Glossary 447
The Choices Ahead	443	Index 459



PREFACE

International Economics is designed for a one-semester course covering both the micro and macro components of international economics. The Seventh Edition continues the approach of the first six editions by offering a principles-level introduction to the core theories, together with policy analysis and the institutional and historical contexts of international economic relations. My goal is to make economic reasoning about the international economy accessible to a diverse group of students, including both economics majors and nonmajors. My intention is to present the consensus of economic opinion, when one exists, and to describe the differences when one does not. In general, however, economists are more often in agreement than not.

New to the Seventh Edition

This Seventh Edition of *International Economics* preserves the organization and coverage of the Sixth Edition and adds a number of updates and enhancements. New to this edition:

- All tables and graphs have been updated.
- New case studies are added in Chapter 2 on the Asian Infrastructure and Investment Bank; Chapter 5 on industrial policies targeting clean energy technology; and Chapter 16 on the Worldwide Governance Indicators.
- Chapter 9 on the balance of payments has incorporated the accounting revisions of the IMF and the implementation of the revisions by the U.S. Bureau of Economic Analysis. The changes recommended by the IMF are mostly terminology, but also in the presentation of debits and credits. Chapter 9 also adds a new appendix on the terminology of numbers: billions, thousands of millions, millions, and trillions.
- The discussion of financial crises in Chapter 12 is presented in terms of vulnerabilities and triggers, following the terminology used by former Fed Chairman Ben Bernanke, among others.
- Chapter 16 has dropped the World Bank's now-dated terminology and focus on the High Performance Asian Economies in favor of a more empirically determined set of high growth, export oriented East Asian economies.
- Chapter 17 is focused on India and China, exclusively.

- The discussion of trade and jobs in Chapters 4, 13, and 17 is more nuanced and reflects the growing challenge to the consensus that trade is not the cause of manufacturing's decline in high-income countries.

Hallmarks of International Economics

Several features of *International Economics* distinguish it from the many excellent texts in the field:

- First, the approach is broader than the theoretical apparatus used by economists. Economic theory is covered and its mastery is essential, but most readers grasp theory more completely when it is presented along with real-world applications. To this end, I have supplemented economic theory with case studies and other content ranging from the role of economic institutions and the analysis of international economic policies to the recent history of the world economy and the challenges facing different geographical regions as they become more economically integrated internationally .
- Second, the objective of covering both the micro and macro sides in a one-semester course necessitates paring back the coverage of theory in order to focus on the central concepts. As all instructors are aware, many theoretical topics are of secondary or tertiary importance, which can pose a problem for students who may lack the needed breadth and depth of understanding to rank topics by their relative importance.
- Third, *International Economics* provides richer historical and institutional detail than most other texts. This material illuminates the relationships between economic theory and policy, and between economics and the other social sciences.
- Fourth, I have organized Part 4 of the book into five chapters, each focused on a geographic area as follows: North America with emphasis on the United States, the European Union, Latin America, East Asia, and India and China. These chapters offer students the chance to broaden their understanding of world trends and to observe the intellectual power of economic theory in practice.

Flexibility of Organization

A text requires a fixed topical sequence because it must order the chapters one after another. This is a potential problem for some instructors, as there is a wide variety of preferences for the order in which topics are taught. The Seventh Edition, like the previous editions, strives for flexibility in allowing instructors to find their own preferred sequence.

Part 1 includes two introductory chapters that are designed to build vocabulary, develop historical perspective, and provide background information about the different international organizations and the roles they play in the world economy. Some instructors prefer to delve into the theory chapters immediately, reserving this material for later in the course. There is no loss of continuity with this approach.

Part 2 presents the micro side of international economics, while Part 3 covers the macro side. These two parts can easily be reversed in sequence if desired.

Part 2 includes six chapters that cover trade models (Chapters 3–5) and commercial policy (Chapters 6–8). A condensed treatment of this section could focus on the Ricardian model in Chapter 3, and the analysis of tariffs and quotas in Chapters 6 and 7. Chapter 8 on labor and environmental standards can stand on its own, although the preceding chapters deepen student understanding of the trade-offs.

Part 3 covers the balance of payments, exchange rates, open-economy macroeconomics, and international financial crises. Chapter 11 on open economy macroeconomics is optional. It is intended for students and instructors who want a review of macroeconomics, including the concepts of fiscal and monetary policy, in a context that includes current accounts and exchange rates. If Chapter 11 is omitted, Chapter 12 (financial crises) remains accessible as long as students have an understanding of the basic concepts of fiscal and monetary policy. Chapter 12 relies most heavily on Chapters 9 (balance of payments) and 10 (exchange rates and exchange rate systems).

Part 4 presents five chapters, each focused on a geographic area. These chapters use theory presented in Chapters 3–12 in a similar fashion to the economics discussion that students find in the business press, congressional testimonies, speeches, and other sources intended for a broad civic audience. Where necessary, concepts such as the real rate of exchange are briefly reviewed. One or more of these chapters can be moved forward to fit the needs of a particular course.

Supplementary Materials

The following supplementary resources are available to support teaching and learning.

- In recognition of the importance of the Internet as a source of timely information, the MyEconLab offers Web links for each chapter of *International Economics*. These links, complete with descriptions of the content available at each site, provide easy access to relevant, current data sources.

Other Supplements

Leonie Stone of State University of New York (SUNY) at Geneseo, has revised the TestGen and Instructor's Manual to bring it up to date with the text. The TestGen is available for download on the Instructor's Resource website. The Instructor's Powerpoints are also available online as an additional resource.

MyEconLab

MyEconLab

MyEconLab has been designed and refined with a single purpose in mind: to create those moments of understanding that transform the difficult into the clear and obvious. With comprehensive homework, quiz, test, and tutorial options, instructors can manage all their assessment needs in one program.

MyEconLab for *International Economics*, Seventh Edition offers the following resources for students and instructors:

- **All end-of-chapter questions** from the text are available in MyEconLab.
- **Personal study plans** are created for each individual student based on performance on assigned and sample exercises.
- **Instant tutorial feedback** on a student's problem and graphing responses to questions.
- **Interactive learning aids**, such as *Help Me Solve This* (a step-by-step tutorial), help the student right when they need it.
- **News articles** are available for classroom and assignment use. Up-to-date news articles and complementary discussion questions are posted weekly to bring today's news into the classroom and course.
- **Real-Time Data Analysis** These exercises allow instructors to assign problems that use up-to-the-minute data. Each RTDA exercise loads the appropriate and most currently available data from FRED, a comprehensive and up-to-date data set maintained by the Federal Reserve Bank of St. Louis. Exercises are graded based on that instance of data, and feedback is provided.
- **An enhanced Pearson eText** available within the online course materials and offline via an app. The enhanced eText allows instructors and students to highlight, bookmark, and take notes.
- **Prebuilt courses** offer a turn-key way for instructors to create a course that includes prebuilt assignments distributed by chapter.
- **Auto graded problems and graphs** for assignments.
- **A powerful gradebook**, flexible and rich with information, including student and class data on assignment performance and time on task.
- **Advanced communication tools** provides students and instructors the capability to communicate through e-mail, discussion board, chat, and ClassLive.
- **Customization options** provide new and enhanced ways to share documents, add content, and rename menu items.
- **Temporary access** for students who are awaiting financial aid; a seventeen-day grace period of temporary access.
- **One place for students to access all of their MyLab courses.** Students and instructors can register, create, and access all of their MyLab courses, regardless of discipline, from one convenient online location: www.pearsonmylab.com.

For more information, please visit www.myeconlab.com.

Acknowledgments

All texts are team efforts, even single-author texts. I owe a debt of gratitude to a large number of people. At San Diego State University, I have benefited from the opportunity to teach and converse with a wide range of students. My colleagues in San Diego and across the border in Mexico have been extremely helpful. Their comments and our conversations constantly push me to think about the core economic ideas that should be a part of a college student's education, and to search for ways to explain the relevance and importance of those ideas with greater clarity and precision. Any failure in this regard is, of course, mine alone.

I am deeply grateful to Neeraj Bhalla, Nicole Suddeth, Sree Meenakshi R, and the MyEconLab team.

Finally, my gratitude goes to the numerous reviewers who have played an essential role in the development of *International Economics*. Each of the following individuals reviewed the manuscript, many of them several times, and provided useful commentary. I cannot express how much the text has benefited from their comments.

Mary Acker
Iona College

Jeff Ankrom
Wittenberg University

David Aschauer
Bates College

H. Somnez Atesoglu
Clarkson University

Titus Awokuse
University of Delaware

Mohsen Bahmani-Oskooee
*University of Wisconsin,
Milwaukee*

Richard T. Baillie
Michigan State University

Mina Balamoune-Lutz,
University of North Florida

Eugene Beaulieu
University of Calgary

Ted Black
Towson University

Bruce Blonigen
University of Oregon

Lee Bour
Florida State University

Byron Brown
*Southern Oregon
University*

Laura Brown
University of Manitoba

Albert Callewaert
Walsh College

Tom Carter
Oklahoma City University

Srikanta Chatterjee
*Massey University, New
Zealand*

Jen-Chi Cheng
Wichita State University

Don Clark
University of Tennessee

Raymond Cohn
Illinois State University

Peter Crabb
*Northwest Nazarene
University*

David Crary
*Eastern Michigan
University*

Al Culver
*California State University,
Chico*

Joseph Daniels
Marquette University

Alan Deardorff
University of Michigan

Craig Depken II
*University of North
Carolina, Charlotte*

John Devereaux
University of Miami

K. Doroodian
Ohio University

Carolyn Evans,
Santa Clara University

Noel J. J. Farley
Bryn Mawr College

Ora Freedman
Stevenson University

Lewis R. Gale IV
*University of Southwest
Louisiana*

Kevin Gallagher
Boston University

Ira Gang
Rutgers University

John Gilbert
Utah State University

James Giordano
Villanova University

Amy Jocelyn Glass
Texas A&M University

Joanne Gowa
Princeton University

Gregory Green <i>Idaho State University</i>	Mary Lesser <i>Iona College</i>	Raj Roy <i>University of Toledo</i>
Thomas Grennes <i>North Carolina State University</i>	Benjamin H. Liebman <i>Saint Joseph's University</i>	Michael Ryan <i>Western Michigan University</i>
Winston Griffith <i>Bucknell University</i>	Susan Linz <i>Michigan State University</i>	George Samuels <i>Sam Houston State University</i>
Jane Hall <i>California State University, Fullerton</i>	Marc Lombard <i>Macquarie University, Australia</i>	Craig Schulman <i>University of Arizona</i>
Seid Hassan <i>Murray State University</i>	Thomas Lowinger <i>Washington State University</i>	William Seyfried <i>Winthrop University</i>
F. Steb Hipple <i>East Tennessee State University</i>	Nicolas Magud <i>University of Oregon</i>	Eckhard Siggel <i>Concordia University</i>
Paul Jensen <i>Drexel University</i>	Bala Maniam <i>Sam Houston State University</i>	David Spiro <i>Columbia University</i>
Ghassan Karam <i>Pace University</i>	Mary McGlasson <i>Arizona State University</i>	Richard Sprinkle <i>University of Texas, El Paso</i>
George Karras <i>University of Illinois at Chicago</i>	Joseph McKinney <i>Baylor University</i>	Ann Sternlicht <i>Virginia Commonwealth University</i>
Kathy Kelly <i>University of Texas, Arlington</i>	Judith McKinney <i>Hobart & William Smith Colleges</i>	Leonie Stone <i>State University of New York at Geneseo</i>
Abdul Khandker <i>University of Wisconsin, La Crosse</i>	Howard McNier <i>San Francisco State University</i>	Carolyn Fabian Stumph <i>Indiana University, Purdue University, Fort Wayne</i>
Jacqueline Khorassani <i>Marietta College</i>	Michael O. Moore <i>George Washington University</i>	Rebecca Summary <i>Southeast Missouri State University</i>
Sunghyun Henry Kim <i>Brandeis University</i>	Stephan Norribin <i>Florida State University</i>	Jack Suyderhoud <i>University of Hawaii</i>
Vani Kotcherlakota <i>University of Nebraska at Kearney</i>	William H. Phillips <i>University of South Carolina</i>	Kishor Thanawala <i>Villanova University</i>
Corrine Krupp <i>Michigan State University</i>	Frank Raymond <i>Bellarmino University</i>	Henry Thompson <i>Auburn University</i>
Kishore Kulkarni <i>Metropolitan State College of Denver</i>	Donald Richards <i>Indiana State University</i>	Cynthia Tori <i>Valdosta State University</i>
Farrokh Langdana <i>Rutgers University</i>	John Robertson <i>University of Kentucky Community College System</i>	Edward Tower <i>Duke University</i>
Daniel Y. Lee <i>Shippensburg University</i>	Jeffrey Rosensweig <i>Emory University</i>	Ross vanWassenhove <i>University of Houston</i>
	Marina Rosser <i>James Madison University</i>	Jose Ventura <i>Sacred Heart University</i>

Craig Walker
*Oklahoma Baptist
University*

Michael Welker
Franciscan University

Jerry Wheat
Indiana State University

Laura Wolff
*Southern Illinois University,
Edwardsville*

Chong K. Yip
Georgia State University

Alina Zapalska
Marshall University

This page intentionally left blank

PART

1

Introduction and Institutions

CHAPTER

1

An Introduction to the World Economy

Learning Objectives

After studying this chapter, students will be able to:

- 1.1** Discuss historical measures of international economic integration with data on trade, capital flows, and migration.
- 1.2** Compute the trade-to-GDP ratio and explain its significance.
- 1.3** Describe three factors in the world economy today that are different from the economy at the end of the first wave of globalization.
- 1.4** List the three types of evidence that trade supports economic growth.

INTRODUCTION: INTERNATIONAL ECONOMIC INTEGRATION

In August of 2007, a crisis erupted in the housing sector of the United States. At the time, few people realized that the subprime mortgage crisis would become a demonstration of international economic integration or that it would push the world economy to the brink of collapse. The crisis grew through the remainder of 2007 and into 2008, so that by the summer nearly all high-income economies were in deep distress. Contagion from the crisis spread like an epidemic as banks and other financial firms collapsed and solvent firms stopped lending. The scarcity of credit caused difficulties for businesses that could not find financing for their day-to-day operations while, at the same time, consumers cut back on their spending and businesses cut back on new investment. By the end of 2008, economies around the world were in recession, with the notable exceptions of China, India, and the major oil producers.

This episode is the most dramatic instance since the Great Depression of the 1930s of a crisis leading to severe economic recession in many countries around the world. It is, however, only one of several recent examples of crises spilling across national borders. The Russian Crisis of 1998–99, the Asian Crisis of 1997–98, the Mexican Crisis of 1994–95, the Latin American Debt Crisis of 1982–89, and a number of others caused major damage to financial systems, businesses, and households, both in the places where they originated and in many other countries.

The international integration of national economies has brought many benefits to nations across the globe, including technological innovation, less expensive products, and greater investment in regions where local capital is scarce, to name a few. But

it has also made countries vulnerable to economic problems that have become more easily transmitted from one place to another. Given that the benefits and costs of international economic integration are surrounded by controversy, it is worth clarifying what we mean by the term *international economic integration*, or *globalization in the economic sphere*. To help us understand these forces better, a historical perspective is also useful.

ELEMENTS OF INTERNATIONAL ECONOMIC INTEGRATION

LO 1.1 Discuss historical measures of international economic integration with data on trade, capital flows, and migration.

LO 1.2 Compute the trade-to-GDP ratio and explain its significance.

LO 1.3 Describe three factors in the world economy today that are different from the economy at the end of the first wave of globalization.

LO 1.4 List the three types of evidence that trade supports economic growth.

Most people would agree that the major economies of the world are more integrated than at any time in history. Given our instantaneous communications, modern transportation, and relatively open trading systems, most goods can move from one country to another without major obstacles and at relatively low cost. For example, most cars today are made in fifteen or more countries after you consider where each part is made, where the advertising originates, who does the accounting, and who transports the components and the final product. Nevertheless, the proposition that today's economies are more integrated than at any other time in history is not simple to demonstrate. It is clear that our current wave of economic integration began in the 1950s, with the reduction of trade barriers after World War II. In the 1970s, many countries began to encourage financial integration by increasing the openness of their capital markets. The advent of the Internet in the 1990s, along with the other elements of the telecommunications revolution, pushed economic integration to new levels as multinational firms developed international production networks and markets became ever more tightly linked.

Today's global economy is not the first instance of a dramatic growth in economic ties between nations, however, as there was another important period between approximately 1870 and 1913. New technologies such as transatlantic cables, steam-powered ships, railroads, and many others led the way, much as they do today. For example, when the first permanent transatlantic cable was completed in 1866, the time it took for a New York businessperson to complete a financial transaction in London fell from approximately three weeks

to one day, and by 1914 it had fallen to one minute as radio telephony became possible.

We have mostly forgotten about this earlier period of economic integration, and that makes it easier to overestimate integration today. Instantaneous communications and rapid transportation, together with the easy availability of foreign products, often cause us to lose sight of the fact that most of what we buy and sell never makes it out of our local or national markets. We rarely pause to think that haircuts, restaurant meals, gardens, health care, education, utilities, and many other goods and services are partially or wholly domestic products. In the United States, for example, about 83.4 percent of goods and services are produced domestically, with imports (16.6 percent) making up the remainder of what we consume (2014). By comparison, in 1890 the United States made about 92 percent of its goods and services, a larger share than today, but not radically different.

The question as to whether we are more economically integrated today or some period in the past is not academic. Between the onset of World War I in 1914 and the end of World War II in 1945, the world economy suffered a series of human-made catastrophes that de-integrated national economies. Two world wars and a global depression caused most countries to close their borders to foreign goods, foreign capital, and foreign people. Since the end of World War II, many of the economic linkages between nations have served to repair the damage done during the first half of the twentieth century, but there is no reason to think that events might not cause a similar decoupling in the future.

Understanding international economic integration requires us to define what we mean by the term. Economists usually point to four criteria or measures for judging the degree of integration, which are trade flows, capital flows, people flows, and the similarity of prices in separate markets. The first three points are relatively self-explanatory, while the similarity of prices refers to the fact that integrated economies have price differences that are relatively small and are due mainly to differences in transportation costs. Goods that can move freely from a low-cost to a high-cost region should experience price convergence as goods move from where they are plentiful and cheap to where they are relatively scarcer and more expensive. All of these indicators—trade flows, factor (labor and capital) movements, and similarity of prices—are measures of the degree of international economic integration.

The Growth of World Trade

Since the end of World War II, world trade has grown much faster than world output. One way to show this is to estimate the ratio of exports by all countries to total production by all countries. In 1950, total world exports—which are the same as world imports—are estimated to have been 5.5 percent of world **gross domestic product (GDP)**, a measure of total production. Sixty-three years later, in 2013, they were approximately 30 percent of world GDP, nearly six times more important relative to the size of the world economy. One important measure of international trade in a nation's economy is the sum of exports plus imports, divided

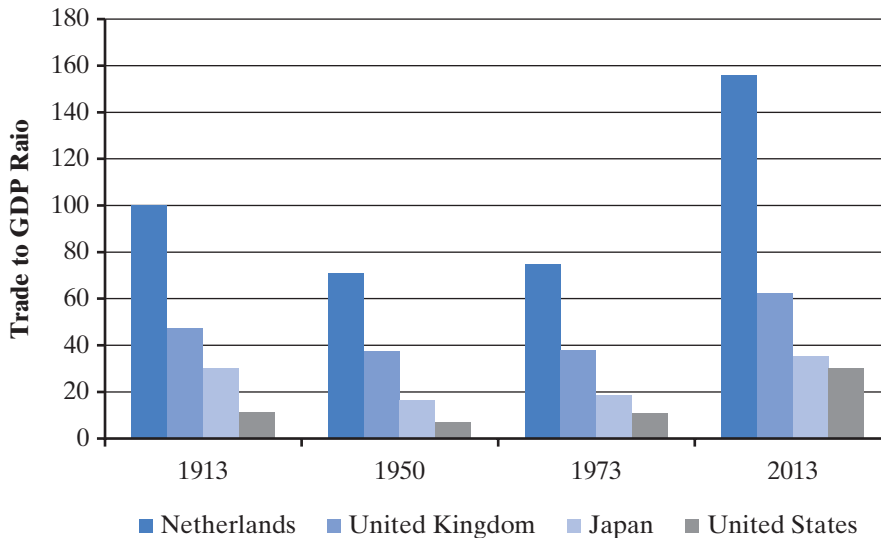
by the GDP. Specifically, it is the value of all final goods and services produced inside a nation during some period, usually one year. The **trade-to-GDP ratio** is represented as follows:

$$\text{Trade to GDP ratio} = (\text{Exports} + \text{Imports}) \div \text{GDP}$$

The ratio does not tell us about a country's trade policies and countries with higher ratios do not necessarily have lower barriers to trade, although that is one possibility. In general, large countries are less dependent on international trade because their firms can reach an optimal production size without having to sell to foreign markets. Consequently, smaller countries tend to have higher ratios of trade-to-GDP.

Figure 1.1 shows the trade-to-GDP ratio for four countries between 1913 and 2013. The decline in trade between the onset of World War I and 1950 is clearly visible in each country, as is the subsequent increase after 1950. Another pattern shown in Figure 1.1 is the smaller ratios for the United States and Japan, which have the largest populations, and the much higher ratio for the Netherlands, which has the smallest population in the sample. In general, smaller countries trade more than larger ones since they cannot efficiently produce a wide range of goods and must depend on trade to a greater extent. For example, if the Netherlands were to produce autos solely for its own market, it would lack economies of scale and could not produce at a competitive cost, whereas the U.S. market can absorb a large share of U.S. output. Hence, the trade-to-GDP ratio measures the relative

FIGURE 1.1 Trade-to-GDP Ratios for Four Countries, 1913–2013



Data from Maddison, A. (1991). "Dynamic Forces in Capitalist Development" and The World Bank, *World Integrated Trade Solution*, © James Gerber.

importance of international trade in a nation's economy, but it does not provide any direct information about trade policy or trade barriers.

Figure 1.1 gives a historical overview of the decline and subsequent return of international trade after World War II, but it obscures important changes in the composition of trade flows from early in the twentieth century to those at the end of the century. Before World War I most trade consisted of agricultural commodities and raw materials, while current trade is primarily manufactured consumer goods and producer goods (machinery and equipment). Consequently, today's manufacturers are much more exposed to international competition than was the case in 1900. In addition, much of the growth of world trade since 1950 has been accomplished by multinational corporations. With production sites in multiple countries and inputs that pass back and forth between affiliates, multinational corporations have become dramatically important. This trend has been supported and encouraged by the telecommunications revolution and transportation improvements that have lowered the costs of coordinating operations physically separated by oceans and continents. And finally, it has also become possible to coordinate service operations such as accounting and data processing from a great distance. In sum, trade today is qualitatively different than in 1913, and the growth of the trade-to-GDP ratio since 1950 does not tell the whole story.

Capital and Labor Mobility

In addition to exports and imports, factor movements also are an indicator of economic integration. As national economies become more interdependent, labor and capital should move more easily across international boundaries. Labor, however, is less mobile internationally than it was in 1900. Consider, for example, that in 1890 approximately 14.5 percent of the U.S. population was foreign born, while in 2010, the figure was 12.9 percent. In 1900, many nations had open door immigration policies, and passport controls, immigration visas, and work permits were exceptions rather than rules. The movement of people was severely restricted by the two world wars and the Great Depression of the 1930s. In the 1920s, during the interwar period, the United States sharply restricted immigration with policies that lasted until the 1960s, when changes in immigration laws once again encouraged foreigners to migrate to the United States.

On the capital side, measurement is more difficult, since there are several ways to measure capital flows. The most basic distinction is between flows of financial capital representing paper assets such as stocks, bonds, currencies, bank accounts, and flows of capital representing physical assets such as real estate, factories, and businesses. The latter type of capital flow is called **foreign direct investment (FDI)**. To some extent, the distinction between the two types of capital flows is immaterial because both represent shifts in wealth across national boundaries and both make one nation's savings available to another.

When we compare international capital flows today to a century ago, there are two points to keep in mind. First, savings and investment are highly correlated. That is, countries with high savings tend to have high rates of investment, and low

savings is correlated with low investment. If there were a single world market in which capital flowed freely and easily, this would not necessarily be the case. Capital would flow from countries with abundant savings and capital to countries with low savings and capital, where it would find its highest returns. Second, a variety of technological improvements increased capital flows in the 1800s, as they are doing today. Transoceanic cables and radio telephony have already been mentioned, but capital flows also increased in the late 1800s because there were new investment opportunities such as national railroad networks and other infrastructure, both at home and abroad.

If we compare the size of capital flows today to the previous era of globalization, flows today are much larger but mainly because economies are larger. Relative to the size of economies, the differences are not great and may even favor the 1870 to 1913 period, depending on what is measured. Great Britain routinely invested 9 percent of its GDP abroad in the decades before 1913, and France, Germany, and the Netherlands were as high at times. For significant periods, Canada, Australia, and Argentina borrowed amounts that exceeded 10 percent of their GDP, a level of borrowing that sends up danger signals in the world economy today. In other words, it is hard to make the argument that national economies have a historically unprecedented level of international capital flows today.

While the relative quantity of capital flows today may not be that much different for many countries, there are some important qualitative differences. First, there are many more financial instruments available now than there were a century ago. These range from relatively mundane stocks and bonds to relatively exotic instruments such as derivatives, currency swaps, and others. By contrast, at the turn of the twentieth century, there were many fewer companies listed on the world's stock exchanges and most international financial transactions involved the buying and selling of bonds.

A second difference today is the role of foreign exchange transactions. In 1900, countries had fixed exchange rates and firms in international trade or finance had less day-to-day risk from a sudden change in the value of a foreign currency. Many firms today spend significant resources to protect themselves from sudden shifts in currency values. Consequently, buying and selling assets denominated in foreign currencies is the largest component of international capital movements. For example, according to the Bank for International Settlements in Geneva, Switzerland, *daily* foreign exchange transactions in 2013 were equal to \$5.3 *trillion*. In 1973, at the end of the last era of fixed exchange rates, they were \$15 billion.

The third major difference in capital flows is that the costs of foreign financial transactions have fallen significantly. Economists refer to the costs of obtaining market information, negotiating an agreement, and enforcing the agreement as **transaction costs**. They are an important part of any business's costs, whether it is a purely domestic enterprise or a company involved in foreign markets. Due to sheer distance, as well as differences in culture, laws, and languages, transaction costs are often higher in international markets than in domestic ones. Today's lower transaction costs for foreign investment mean that it is less expensive to move capital across international boundaries.

The volatile movement of financial capital across international boundaries is often mistakenly regarded as a new feature of the international economy. Speculative excesses and overinvestment, followed by capital flight and bankruptcies, have occurred throughout the modern era, going back at least to the 1600s and probably earlier. U.S. and world history show a number of such cases. Financial crises are not a new phenomenon, nor have we learned how to avoid them—a fact driven home by the recent subprime mortgage crisis.

Features of Contemporary International Economic Relations

While international economic integration has been rapid, it does not appear to be historically unprecedented. The trade-to-GDP ratio is about 50 percent higher in the U.S. economy than it was in 1890, and manufacturers and service providers are more exposed to international forces. Labor is less mobile than in 1900 due to passport controls and work permits, but capital is more mobile and encompasses a larger variety of financial forms. Prices in many U.S. and foreign markets tend to be similar, although there are still significant differences. In quantitative terms, the differences between today and a hundred years ago may not be as great as many people imagine, but qualitatively, a number of additional features of the world economy separate the first decade of the twenty-first century from the first decade of the twentieth.

Deeper Integration High-income countries have low barriers to imports of manufactured goods. There are some exceptions (processed foodstuffs and apparel), but as a general rule import **tariffs** (taxes on imports) and other barriers such as **quotas** (quantitative restrictions on imports) are much less restrictive than they were in the middle of the twentieth century. As trade barriers came down during the second half of the twentieth century, two other trends began to intensify economic integration between countries. First, lower trade barriers exposed the fact that most countries have domestic policies that are obstacles to international trade. National regulations governing labor, environmental, and consumer safety standards; rules governing investment location and performance; rules defining fair and unfair competition; rules on government “buy-national” programs; and government support policies for specific industries—all have little impact on trade until formal trade barriers start to fall and trade volume increases. These policies were not implemented to protect domestic industries from foreign competition, and as long as tariffs were high and trade flows were limited, they did not matter much to trade relations. Once tariffs fell, however, many forms of domestic policies began to be viewed as barriers to increased trade. Economists sometimes refer to the reduction of tariffs and the elimination of quotas as **shallow integration** and negotiations over domestic policies that impact international trade as **deep integration**. Deep integration is much more contentious than shallow integration and much more difficult to accomplish since it involves domestic policy changes that align a country with rules that are created abroad, or at least negotiated with foreign powers.

A second noticeable trend over the last few decades is that technologically complicated goods such as smart phones and automobiles are made of components produced in more than one country and, consequently, labels such as “Made in China” or “Made in the USA” are less and less meaningful. Low tariffs along with innovations in transportation and communication technologies have enabled firms to locate production of the different components of a sophisticated product in different countries. For example, the hardware for a 3G iPhone is produced in Germany, Korea, Japan, and the United States, and then it is assembled in China. The most valuable share of the hardware is made in Japan, but no one thinks of this device as a Japanese phone. In this case, as in many others, it is not accurate to say the product is made in one particular country since the parts come from all over, and the product is the result of a multinational effort involving firms and workers from many different countries.

These two trends raise new issues that are shaping the world economy in the twenty-first century. The first trend, greater interest in the consequences of different domestic policies, makes trade negotiations more difficult and creates widespread discussion of labor, environmental, and other standards that may affect trade flows. The second trend, greater participation in the production of a single product by firms in multiple countries, leads to concerns about the impact of trade on national economies, employment, and working conditions. National and international dialogues on these issues are a key feature of international economics in the twenty-first century.

Multilateral Organizations At the end of World War II, the United States, Great Britain, and their allies created a number of international organizations to maintain international economic and political stability. Although the architects of these organizations could not envision the challenges and issues they would confront over the next fifty years, the organizations were given significant flexibility, and they continue to play an important and growing role in managing the issues of shallow and deeper integration.

The International Monetary Fund (IMF), the World Bank, the General Agreement on Tariffs and Trade (GATT), the United Nations (UN), the World Trade Organization (the WTO began operation in 1995, but grew out of the GATT), and a host of smaller organizations have broad international participation. They serve as forums for discussing and establishing rules, as mediators of disputes, and as organizers of actions to resolve problems. All of these organizations are controversial and have come under increasing fire from critics who charge that they promote unsustainable economic policies or that they protect the interests of wealthy countries. Others argue that they are unnecessary foreign entanglements that severely limit the scope for national action (Chapter 2 examines this issue in detail). These organizations are attempts to create internationally acceptable rules for trade and commerce and to deal with potential disputes before they spill across international borders; they are an entirely new element in the international economy.

Regional Trade Agreements Agreements between groups of nations are not new. Free-trade agreements and other forms of preferential trade have existed