CONTENTS

	Page
CHAPTER 1. SUSTAINING A RECORD-BREAKING EXPANSION	21
Growth and Inequality: A Century-Long Perspective	23
The Golden Years of Equitable Growth	24
Growth Undermined: Stagflation, Rising Inequality, and Deficits	25
The Return to Broad-Based Growth in a Record-Breaking Expansion	26
The Engines of the 1990s Expansion	28
Information and Other Technology	28
Competition and Trade	30
Education, Skills, and Work Incentives	30
Pro-Investment Policies	31
Key Features of the Expansion	34
Productivity Growth	34
Inflation	36
Questioning the Causes of Inequality	37
Is the Dream Restored?	40
Challenges for the Future	42
Stabilizing the Macroeconomy	42
Enhancing Productivity	42
Promoting Skills, Education, and Development	43
Supporting the Diverse American Family	44
Exploiting the Potential of Globalization	45
Maintaining the Environment Efficiently	46
Conclusion	47
CHAPTER 2. MACROECONOMIC POLICY AND PERFORMANCE	49
The Year in Review	53
Components of Spending	53
Labor Markets and Inflation	58
Financial Markets	64
Saving and Investment	72
Trends in Saving	72
Saving and Asset Accumulation	73
The End of the Business Cycle?	74
The Changing Nature of Business Cycles in the United States	75

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

	Page
Sources of Business Cycle Moderation	76
Do Expansions Die of Old Age?	77
An Expansion is Only as Old as It Feels, and This One Still Feels Young	77
The Economic Outlook	79
What Has Caused Productivity Growth to Rise?	80
The Outlook for Productivity	84
Supply-Side Components of GDP	85
Budget Effects of a High-Investment Economy	86
What Has Held Inflation in Check?	87
The Near-Term Outlook	92
CHAPTER 3. TECHNOLOGY AND THE AMERICAN ECONOMY	97
Innovation and Economic Change: A Look Back	99
Innovation and Change in the American Economy Today	103
Developments in Telecommunications	105
How Information Technology is Changing the Economy	112
Managing Information Flows	113
Retail E-Commerce	115
Business-to-Business E-Commerce	116
Information Technology and the Theory of the Firm	118
Information Technology and Network Effects	120
The Role for Government Policies	122
Support for Research and Development	123
Technology Initiatives in the Budget	124
Maintaining Competition	126
Conclusion	127
CHAPTER 4. WORK AND LEARNING IN THE 21ST CENTURY	129
The Transformation of the Labor Market	132
The Rising Importance of Skills and Education	132
Growth in Opportunities	137
Preparing the American Work Force for the 21st Century	144
Building Foundations: Educating America's Youth	146
The Continuing Challenge: Reeducating and Retraining	157
Conclusion	164
CHAPTER 5. THE CHANGING AMERICAN FAMILY	165
Key Trends Shaping the American Family	167
Female Labor Force Participation	168
Family Formation and Dissolution	168

Page
Life Expectancy and Health 170
Increasing Diversity Across Families 172
Diversity in Family Structure 172
Diversity of Income and Hours of Work 175
The Rising Earnings of Women with Children 177
Challenges Families Face 182
The "Money Crunch" 182
Boosting the Financial Resources of Families to Lessen the Money Crunch 185
The "Time Crunch" 190
Increasing the Flexibility of Paid Work to Lessen the Time Crunch 194
Conclusion 197
CHAPTER 6. OPPORTUNITY AND CHALLENGE IN THE GLOBAL ECONOMY 199
The Fall and Rise of the Global Economy 202
The Growing Importance of Trade 202
The Rise of International Capital Flows 205
The Forces Behind Globalization 208
The Role of Technology 209
The Role of Policy 210
The Benefits of a Global Economy 213
Globalization and Living Standards 214
Globalization and Growth 216
The Challenges of Globalization 217
Spreading the Benefits of Trade 217
Managing Capital Flows and the Macroeconomy 225
The Trade and Current Account Deficits 231
Conclusion 236
CHAPTER 7. MAKING MARKETS WORK FOR THE ENVIRONMENT 239
Environmental Problems Since 1900 240
A Brief History of Environmental Problems 240
` Environmental Pollution and Development 241
Designing Policies to Address Environmental Pollution 246
Traditional Regulatory Approaches to Address Environmental Pollution 247
Incentive-Based Approaches to Address Environmental Pollution 248
Important Issues in Designing Incentive-Based Instruments 250
Uncertainty About Costs and Benefits 250

Page

Heterogeneity in Abatement Benefits 252
Heterogeneity in Abatement Costs 253
Scope of the Emissions Trading Market 253
Restrictions on Trading 254
Liability 254
Banking and Borrowing 255
Tradable Permits and Charges in Practice 255
Permit Trading: Emissions Trading Policy Under the Clean Air Act 256
Permit Trading: RECLAIM 257
Permit Trading: Sulfur Dioxide Trading Program 259
Permit Trading: Phasedown of Leaded Gasoline 260
Charges: Unit-Based Pricing of Residential Solid Waste 261
Implications of the U.S. Experience 263
Applying the Lessons Learned: Global Climate Change 265
Flexibility Mechanisms in the Kyoto Protocol 266
Cost-Effectiveness of Kyoto Protocol Flexibility Mechanisms 267
Expanding the Scope of Trading to More Countries 268
Expanding the Scope of Trading to More Greenhouse Gases 268
Quantitative Restrictions on Trading 270
Liability Rules for Trading 270
Making Trading Across Countries Work 270
Conclusion 274

CONCLUSION. A CENTURY OF CHANGE: NEW OPPORTUNITIES FOR THE FUTURE 277
A Look Back 278
The American Economy Today 279
The Drivers of Change and the Challenges Ahead 280
Conclusion 283

APPENDIXES

A. Report to the President on the Activities of the Council of Economic Advisers During 1999 285
B. Statistical Tables Relating to Income, Employment, and Production 299

Page

LIST OF TABLES

1-1. Growth in GNP, Business Sector Output per Hour, and Number of Employees for Selected Periods 41
2-1. Growth of Real GDP and its Components During 1998 and 1999..... 53
2-2. The Late-Expansion Economy and the Current Expansion..... 78
2-3. Accounting for the Productivity Acceleration in the 1990s 83
2-4. Accounting for Growth in Real GDP, 1960-2007..... 85
2-5. Administration Forecast 87
3-1. Cost of Internet Access in 1999..... 111
3-2. Information Technology Investment per Worker in the 15 Most Information Technology-Intensive Industries, 1996..... 113
4-1. Share of Women Employed in Selected Occupations in 1950 and 1999..... 139
5-1. Contrasting American Families Then and Now..... 166
5-2. Educational Distribution of Women with Children 179
5-3. Share of Women with Children Who Worked in Previous Year, by Education..... 180
7-1. Number of Communities Adopting Unit-Based Pricing Residential Solid Waste Collection Programs 262

LIST OF CHARTS

1-1. Growth in Income per Capita and Business Sector Output per Hour 23
1-2. Growth in Real Compensation per Hour (Nonfarm Business Sector)..... 26
1-3. Growth in Mean Real Family Income by Quintile 27
1-4. Real Private Investment in Equipment as a Share of Real GDP 29
1-5. Trade as a Share of GDP During Expansions 31
1-6. Contributions to Economic Growth During Expansions 32
1-7. Federal Budget Receipts and Outlays 33
1-8. Structural Federal Budget Balances During Expansions..... 33
1-9. Growth in Nonfarm Business Sector Output per Hour During Expansions..... 35
1-10. Core Inflation Rates During Expansions 36
1-11. Capacity Utilization in Manufacturing During Long Expansions 37
2-1. Unemployment Rate 51
2-2. Inflation Rate 51

		Page
2-3.	Net Worth and the Personal Consumption Rate	55
2-4.	Inventory-to-Sales Ratio (Manufacturing and Trade)	56
2-5.	Federal Budget Surplus	57
2-6.	Growth of Real Compensation per Hour (Nonfarm Business Sector)	62
2-7.	Capacity Utilization (Manufacturing)	63
2-8.	Equity Prices	65
2-9.	Yields on Treasury Securities	66
2-10.	Cumulative Real Returns in the Top Six Bull Markets Since 1802	68
2-11.	Real Stock and Bond Returns Since 1801	69
2-12.	Net National Saving and Net Domestic Investment	72
2-13.	Gross National Saving	73
2-14.	Fluctuations in Output, Inflation, and Unemployment	76
2-15.	Labor Productivity (Nonfarm Business Sector)	79
2-16.	Sources of Revisions to Real GDP Growth	82
2-17.	The Phillips Curve, Productivity, and the NAIRU	91
3-1.	Household Adoption of Selected Technologies Since 1900	100
3-2.	Contribution of Computers and Telecommunications Purchases to GDP Growth	105
3-3.	Real Private Direct Investment in Communications Equipment	109
3-4.	Households with Access to E-Mail at Home, by Income	111
3-5.	Real Net Stock of Information Technology Equipment in the Private Sector	112
3-6.	Real Inventory-to-Sales Ratios for Selected Product Categories	115
3-7.	Business-to-Business E-Commerce	117
3-8.	Patents Granted Since 1900	122
4-1.	Composition of Employment by Major Sector Since 1900	130
4-2.	High School Graduation Rates of 25- to 29-Year-Olds by Race and Ethnicity	133
4-3.	College Completion Rates of 25- to 29-Year Olds by Race and Ethnicity	133
4-4.	Median Weekly Earnings of Male Workers by Educational Attainment	135
4-5.	Ratios of Median Weekly Earnings of Male College Graduates to Earnings of High School Graduates and Dropouts	136
4-6.	Ratios of Median Annual Earnings of Female Workers to Earnings of Males	139

		Page
4-7.	Ratios of Median Annual Earnings of African American Workers to Earnings of White Workers	143
4-8.	Average Scores on the Scholastic Assessment Test (SAT)	148
4-9.	Shares of Public Schools with Internet Access by Poverty Status	152
5-1.	Labor Force Participation of Women	169
5-2.	Shares of Population Aged 35-54 Who Are Widowed or Divorced	170
5-3.	Birth Rates for Married and Unmarried Females	171
5-4.	Composition of Families by Family Structure	172
5-5.	Grandchildren in Grandparents' Homes by Presence of Parents	174
5-6.	Median Family Income by Family Structure	176
5-7.	Income Distributions for Families with Children by Family Structure, 1998	177
5-8.	Distribution of Annual Hours Worked by Families with Children, 1998	178
5-9.	Time Available to Custodial Parents After Paid Work and Sleep	191
6-1.	GDP and Export Growth Rates for Group of Seven Countries Since 1700	200
6-2.	U.S. Trade Relative to GNP Since 1900	203
6-3	U.S. Trade by Sector in 1998	204
6-4.	Capital Flows Into and Out of the United States Relative to GNP	206
6-5.	Average U.S. Tariff Rates Since 1900	211
6-6.	GDP per Capita in the United States and Selected Major Economies	213
6-7.	Saving, Investment, and the Current Account Balance	233
6-8.	U.S. and Foreign GDP Growth and U.S. Net Exports	233
6-9.	Real Effective Exchange Rate of the Dollar and the Trade Deficit	234
7-1	Sulfur Dioxide and Nitrogen Oxide Emissions per Unit of GNP Since 1900	242
7-2	Carbon Dioxide Emissions per Unit of GNP Since 1900	242
7-3	South Coast Air Basin Exceedances of Federal Ozone Standard	258
7-4	Emissions from Phase I Facilities in the Sulfur Dioxide Trading Program	260
7-5	Lead Emissions	261

Page

LIST OF BOXES

2-1. The CPI-U-RS, a Consumer Price Index with More Consistent Methodology 60
2-2. Economic Impact of Y2K Preparations 64
2-3. What Did We Learn from the GDP Benchmark Revision? 81
3-1. Measuring the Economy in an Era of Technological Change .. 106
3-2. Implementing Local Competition Provisions in the 1996 Telecommunications Act 108
3-3. Holding an Online Auction 119
4-1. The Role of Government Policy in Improving the Economic Status of African Americans 142
4-2. Helping Areas Left Behind: Opening New Markets 145
4-3. The Administration's Education Goals 149
4-4. The Role of Community Colleges 155
4-5. Using Technology to Help Workers: America's Career Kit 163
5-1. The Importance of Fathers 173
5-2. The Diversity of American Households 175
5-3. Women Professionals, the Rat Race, and the Time Crunch 181
5-4. The National Strategy to Reduce Teen Pregnancy 188
6-1. Multinational Corporations and Globalization 207
6-2. China's WTO Accession: Opening Foreign Markets, Extending the Rule of Law, and Encouraging Growth and Development 221
6-3. The New International Financial Architecture 229
7-1. Structural Economic Change and Carbon Dioxide Emissions 243
7-2. Taking Account of the Environment 245
7-3. Emissions Trading: An Illustrative Example 249
7-4. Should Regulators Allocate or Sell Tradable Permits? 251
7-5. Individual Quotas for Fisheries Management 264
7-6. Expanding the Scope of the Market Through Developing Country Participation 269
7-7. The EU Bubble Allocation and Restrictions on Kyoto Protocol Mechanisms 271
7-8. The Renewable Portfolio Standard 272
7-9. Climate Research and Development and Information Programs 273