

Contents

Foreword	xiii
About the Contributors	xvii
Abbreviations	xix
1 NEITHER CURSE NOR DESTINY: INTRODUCTION TO NATURAL RESOURCES AND DEVELOPMENT <i>Daniel Lederman and William F. Maloney</i>	1
PART I: ARE NATURAL RESOURCES A CURSE? ECONOMETRIC EVIDENCE	
2 TRADE STRUCTURE AND GROWTH <i>Daniel Lederman and William F. Maloney</i>	15
3 RESOURCE CURSE OR DEBT OVERHANG? <i>Ozmel Manzano and Roberto Rigobón</i>	41
4 THE RELATIVE RICHNESS OF THE POOR? NATURAL RESOURCES, HUMAN CAPITAL, AND ECONOMIC GROWTH <i>Claudio Bravo-Ortega and José de Gregorio</i>	71
PART II: ARE NATURAL RESOURCES A CURSE? LESSONS FROM HISTORY	
5 PREBISCH-SINGER REDUX <i>John T. Cuddington, Rodney Ludema, Shamila A. Jayasuriya</i>	103
6 MISSED OPPORTUNITIES: INNOVATION AND RESOURCE-BASED GROWTH IN LATIN AMERICA <i>William F. Maloney</i>	141

7	RESOURCE-BASED GROWTH PAST AND PRESENT <i>Gavin Wright and Jesse Czelusta</i>	183
8	FROM NATURAL RESOURCES TO HIGH-TECH PRODUCTION: THE EVOLUTION OF INDUSTRIAL COMPETITIVENESS IN SWEDEN AND FINLAND <i>Magnus Blomström and Ari Kokko</i>	213
PART III: ARE NATURAL RESOURCES DESTINY?		
9	TRADE, LOCATION, AND DEVELOPMENT: AN OVERVIEW OF THEORY <i>Anthony Venables</i>	259
10	COMPARATIVE ADVANTAGE AND TRADE INTENSITY: ARE TRADITIONAL ENDOWMENTS DESTINY? <i>Daniel Lederman and L. Colin Xu</i>	289
11	OUTGROWING RESOURCE DEPENDENCE: THEORY AND DEVELOPMENTS <i>Will Martin</i>	323
	INDEX	357
BOXES		
5.1	Bad Data?	115
5.2	Unit Root Perils	118
FIGURES		
2.1a	Growth vs. NR Net Exports/Labor Force, 1980–99	18
2.1b	Growth vs. NR Exports/GDP, 1980–99	18
2.1c	Growth vs. Export Herfindahl, 1980–99	20
2.1d	Growth vs. NR Exports/Total Merchandise Exports, 1980–99	20
2.1e	Growth vs. IIT, 1980–99	21
3.1	Relationship between Natural Resources Abundance and Growth as Shown by Comparing Primary Exports per GDP to Growth, 1970–90	42
3.2	Shocks to Primary Exports	48
3.3	Shocks to “Real” Primary Exports	52
3.4	Residuals and Nonagricultural Primary Exports	55
3.5	Debt Growth and Resource Abundance	59
3.6	Commodity Prices	60
4.1	Growth Path	80

4.2	Growth and Natural Resource Abundance	85
4.3	Income and Natural Resource Abundance	86
5.1	World Market for Primary Commodities Relative to Manufactures	105
5.2	Grilli-Yang Commodity Price Index Deflated by the MUV	117
5.3	A Secular Deterioration in Real Commodity Prices?	122
5.4	Evidence of Parameter Instability in TS-AR(1) Model	123
5.5	A Volatile Unit Root Process?	124
5.6	Evidence of Parameter Instability in DS Model	125
5.7	Alternative Specifications	128
5.8	A Segmented Trend Stationary Model?	135
5.9	The $\chi^2(2)$ Sequence for DS Model with One Break	136
6.1	Natural Resource Endowments and Level of Development	142
6.2	TFP Growth, 1967–92	144
6.3	Literacy Rates in Latin American Countries, 1870–1925	150
6.4	Average Effective Tariffs, Latin American Countries	159
6.5	Average Effective Tariffs, Beta Countries	160
6.6	Openness by Country, Latin American Countries	161
6.7	Openness by Country, Beta Countries	161
6.8	Impact of the Great Depression through Commodity Prices, Latin American Countries	162
6.9	Impact of the Great Depression through Commodity Prices, Beta Countries	162
7.1	Copper Mine Production, United States and Chile, and Real U.S. Price of Copper, 1845–1976	189
7.2	Australian Mine Production, Selected Minerals, 1844–1998	202
8.1	The Swedish Forest Industry Cluster	231
9.1	Cost Share and Endowment	262
9.2a	Zones of Specialization	264
9.2b	Factor Prices and Incomes	265
9.3a	Industry Location: Diminishing Returns	273
9.3b	Industry Location: Increasing Returns	273
9.4	Real Wages and Transport Costs	276
9.5	The Spread of Industry	277
10.1	Average Net Exports per Worker by Commodity Groups, 1982–97	291
10.2	Net Exports and the Balanced-Trade Assumption	295
10.3	Nonhomothetic Tastes and Net Exports	296
11.1	The Changing Pattern of Merchandise Exports from Developing Countries	332
11.2	Change in Developing Country Export Shares at 1965 Prices	333
11.3	Services as a Share of Total Exports of Goods and Services	334
11.4	Changes in Tariff Rates since the early 1980s	339

TABLES

2.1	Definitions and Sources of Variables	26
2.2	Descriptive Statistics	27
2.3a	Estimated Effect of Trade Structure on Growth (Cross-Section, 1980–99)	28
2.3b	Estimated Effect of Trade Structure on Growth (Panel Data [System Estimator], 1980–99)	30
2A.1	List of Countries in Heston and Summers Sample	34
3.1	Results from Sachs and Warner Illustrating the Negative Relationship between Resource Abundance and Growth	43
3.2	Sample Effects of Sachs and Warner's Findings in Selected Countries	43
3.3	Commodity Production per Capita	45
3.4	Effect of Natural Resources: Cross-Section vs. Panel	47
3.5	Nonresource Growth: Cross-Section	49
3.6	Nonresource GDP: Cross-Section vs. Panel	49
3.7	"Real" Nonresource Growth: Cross-Section	50
3.8	"Real" Nonresource GDP: Cross-Section vs. Panel	51
3.9	Dividing Exports by Origin	53
3.10	Effects of Different Resource Exports: Cross-Section vs. Panel	54
3.11	OECD vs. Non-OECD Countries	56
3.12	Resource Abundance and Institutions	57
3.13	Price Growth Rates Every Five Years, 1970–90	60
3.14	Natural Resources and Credit Constraints	61
3A.1	Credit Constraints and Institutions	63
3A.2	Credit Constraints and Education	65
3A.3	Credit Constraints and Financial Depth Development	66
3A.4	Credit Constraints and Export Concentration	67
4.1	Comparative Evolution of Income and Exports per Capita	75
4.2	Social Infrastructure Indicators 1870–1910	76
4.3	Determinants of Economic Growth, Instrumental Variables Estimations	87
4.4	Determinants of Level of Income, Instrumental Variables Estimations	89
4.5	Determinants of Economic Growth, Interaction Effect between Natural Resources and Human Capital, Instrumental Variables Estimations	90
5.1	Commodities with a Large Share of Export Earnings in a Given Country (based on annual average export shares, 1992–97)	108
5.2	Top Two Commodities Exported by Latin American Countries, 1900–95	111

5.3	Estimation Results for a Difference Stationary Model for the GY Series	125
5.4	Grid Search Results for Two Possible Breaks at Unknown Dates (TB1, TB2)	133
5.5	Estimation Results for a Trend Stationary Model with Two Breaks for the Grilli-Yang Series	134
6.1	Growth Correlates: Maddison Data, 1820–1989	143
6.2	Growth Correlates including Measures of Openness, Knowledge, Maddison, and Sachs and Warner Data	147
6.3	Density of Engineers at the Turn of the 20th Century	153
6.4	Impact of the Great Depression	163
7.1	Average Yields of Copper Ore	190
7.2	Average Annual Percentage Growth Rates of Mine Production for Selected Mineral/Country Pairs, 1978–2001	205
8.1	Changes in World Market Shares in Broad Industrial Groups, 1985, 1990, and 1996	215
8.2	The Structure of Swedish Exports 1881–85 and 1911–13	223
8.3	Participants in the Knowledge and Skill Cluster in the Swedish Sawn Wood Products Industry, 1990	234
8.4	Participants in the Knowledge and Skill Cluster in the Paper and Pulp Industry, 1990	237
10.1	Variance of Variables of Interest across and within Countries	305
10.2	Determinants of Comparative Advantage: Marginal-Effects Coefficients from Heckman's Selection Equations	306
10.3	The Role of Traditional and "New" Endowments in Accounting for the Variance in Comparative Advantage across Countries and over Time	310
10.4	Determinants of Trade Intensity	311
10.A1	Countries in the Sample	315
10.A2	Summary Statistics: Annual Observations Used in the Regressions	316
10.A3	Variable Descriptions and Sources	317
11.1	Annual Changes in Factor Endowment Ratios	337
11.2	Frequency of Total Core Nontariff Measures in Developing Countries, 1989–98	339
11.3	Average Black-Market Premium 1980–97	340
11.4	Shares of Intermediate Inputs and Effective Rates of Protection for Exporters, 1997	341
11.5	Sectoral Productivity Growth	343
11.A1	Shares of Manufactures in Total Merchandise Exports	350