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Price Competitiveness in World Trade

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AND

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64

**Price Competitiveness
in World Trade**

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*(Resolution adopted October 25, 1926, and revised February 6, 1933,
February 24, 1941, and April 20, 1968)*

Foreword

The project described by this report, the fifth in the National Bureau's Studies in International Economic Relations, had two purposes. One was the development of methods of measuring relative prices and price movements in international trade. The other was the calculation, using these methods, of international price measures for the main exporting countries, covering machinery, transport equipment, metals, and metal products.

This study combines two strands of the National Bureau's earlier work, one devoted to the improvement of price measures and the other to the analysis of changes in the international economic position of the United States. The study of price measurement at the Bureau has a long history, but the most recent related work was the report on *The Price Statistics of the Federal Government* (New York, NBER, 1961). This included an appendix on "Export and Import Price Indexes" which reviewed the unit value indexes of the U.S. Department of Commerce; a staff paper by Zvi Griliches on "Hedonic Price Indexes for Automobiles: An Econometric Analysis of Quality Change"; and several papers on U.S. wholesale price indexes. A closer examination of the accuracy of the official U.S. wholesale price data has been performed recently in a report on *The Behavior of Industrial Prices* (New York, NBER, 1970), by George J. Stigler and James K. Kindahl, which also followed the practice of using reports from buyers, as the present study does to a substantial degree.

The National Bureau's recent analyses of international trade and payments began with Hal B. Lary's book on *Problems of the United States as World Trader and Banker* (New York, NBER, 1963). The genesis of the present study was a discussion in that volume of the inadequacy of the measures of international price relationships then available and of the need for better measures to aid in the analysis of changes in trade balances. The results of an effort to improve and interpret the historical record on the export and import prices of the United States were presented in *Price and Quantity Trends in the Foreign Trade of the United States* (Princeton University Press for NBER, 1963), by Robert E. Lipsey. The relation of price and quantity changes in foreign trade to those of the domestic economy was discussed there, and some comparisons between wholesale price and unit value data were included.

This report consists of five parts. Part One is a description of the scope of the study and a summary of the findings on method (Chapter 1) and the empirical results (Chapter 2). Part Two gives a more extended presentation of the methods used and the reasons for choosing them. Part Three gives the general empirical findings on price-quantity relationships and other aspects of international competitiveness, and compares the international price indexes derived here with wholesale price and unit value indexes. Part Four consists of more detailed reports for the main product groups covered in the study, particularly those for which there was information on nonprice factors or for which the analysis in some way went beyond the price collection itself. The basic data for the study are set out in the appendixes, of which A and B give the trade data; C, D, and E, the detailed indexes computed for the study; and F and G, indexes calculated from wholesale prices for several countries and from U.S. export unit value data.

IRVING B. KRAVIS
ROBERT E. LIPSEY

Acknowledgments

The collection of this large body of new price data required the assistance of many groups outside the National Bureau. Several hundred business firms, under a promise of anonymity, provided us with price data on products they bought or sold internationally and with insights into the peculiarities of individual markets. We are indebted to these companies and to the National Bureau directors, University of Pennsylvania trustees, and business organizations who arranged introductions to them. A number of American and foreign governmental and intergovernmental agencies and private groups supplied foreign data and particularly international bidding information which were a major source for us. Among those we can thank publicly are the U.S. Bureau of Labor Statistics, the Department of Defense, the Statistical Office of the Federal Republic of Germany, the IFO-Institut für Wirtschaftsforschung in Munich, and the Department of Economics of the Hebrew University in Jerusalem.

In the beginning of the study, Philip J. Bourque, of the University of Washington played a major role in the planning and data collection. Elizabeth Durbin, now of New York University, assisted in developing the price collection methods and was responsible for much of that work. At later stages, Marianne Tampier Lloris, Christine Mortensen, Doris Preston, and Zenaida Mata handled the major part of the assembly of data, machine calculation, and the checking of the manuscript. They were aided at various times, in the data collection and programing, by Jill Adler, Sultan Ahmad, Rita Bank, Betty Fishbein, Michelle Turnovsky, Lorenzo Perez, Joaquin Pujol, Jocelyn Coburn Whitmoyer, and Margot Zimmerman. Beatrice Grabiner managed the extensive data files and the other secretarial work of the project. Ester Moskowitz edited the volume, and H. Irving Forman drew the charts.

Among our colleagues, Hal Lary played a major part in initiating the study and in encouraging our efforts throughout its sometimes discouraging length. Ilse Mintz, Nancy Ruggles, and Raymond J. Struyk served on the staff reading committee, and David L. Grove, Douglass C. North, and Thomas A. Wilson were the directors' reading committee. We received numerous helpful comments from both groups and from other members of the staff and board of directors who read individual

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Contents

Foreword	vii
Acknowledgments	ix

PART ONE. INTRODUCTION AND SUMMARY

<i>1. The Nature of the Study</i>	3
The Need for New Measures	3
New Measures of International Prices	7
The Substantive Scope of the Study	11
Conclusions Regarding Method	15
<i>2. Empirical Results</i>	19
The Price Competitiveness of the United States, 1953-64	19
The Diffusion of the Changes	23
Categories Marked by Large Price Level Differences	26
Individual-country Weighting Systems	27
Effects of Price Changes on Trade Quantities	29
Nonprice Factors Affecting the Competitive Position of the United States	31
Technological Leadership	32
Large Size of the Domestic Market	33
Quality of Product	33
Speed of Delivery	35

PART TWO. METHODS

<i>3. Conceptual Problems in Measuring the Role of Prices in International Competitiveness</i>	39
The Index of Price Competitiveness as an Analytical Measure	39
Relation of Price Competitiveness to Market Shares	40
Prices and Costs as Alternative Approaches to Competitiveness	42
The Interpretation of the Index of Price Competitiveness	43
Scope for International Differences in Prices	47
Transfer Costs	48
Restrictive Practices	55
Product Differentiation	57
Nonprice Factors	59

4. <i>Methods of the Study</i>	62
Data Collection	62
Method of Collection	62
Sources of Price Data	63
Selection of Items for the Sample	69
Place of Reference of Prices	70
Exclusion of Service Components of Prices	71
Price Concepts	72
The Comparability of Products and Prices	72
The Quality Problem	72
Unique Goods	74
Use of Domestic Prices	75
Use of Offer Prices	76
The Problem of Intracompany Transactions	78
Aggregation Methods	80
The Problem of Weights	80
Aggregation for Price Competitiveness Indexes	82
Appendixes	89
Copy of Instructions Left with Respondent Firms	89
Form Used for Gathering Price Data	93
5. <i>Measuring Price Differences by Regression Methods</i>	94
The Rationale of Regression Analysis in Price Comparisons	95
Cost vs. Utility	96
Use of Regression Coefficients for Price Measurement	97
Specification Differences and Regression Strategies	98
Automotive Diesel Engine Price Regressions	105
Specification of the Relationship	105
Mathematical Form	109
Types of Regression	110
Pooling with International Differences in Element Prices	111
Other Types of Regression	115
Conclusions	117
Other Applications of Regression Methods	120
 PART THREE. ASSESSING THE ROLE OF PRICES IN TRADE	
6. <i>Quantity-Price Relationships</i>	127
The Utility of the New Indexes	127
The Price-Quantity Equations	130
All Goods Treated as a Single Aggregate	132
Two-digit Categories	134

Three- and Four-digit Groups	139
Earlier Estimates of Elasticities	141
Product Elasticities (1963 Cross-sectional Data)	144
Export Specialization and Price Trends	148
<i>7. Some Further Aspects of International Competitiveness</i>	151
The Relative Importance of Price and Nonprice Factors	151
Price Differentiation Between Domestic and Export Markets	157
Shipment Delay	158
Appendix: Copy of Form Used in Survey of Export Competitiveness	165
<i>8. Wholesale Prices and Unit Values as Measures of International Price Competitiveness</i>	169
Price Indexes from International and Wholesale Price Data	171
Price Competitiveness Indexes from International and Wholesale Price Data	182
Price Indexes from International Prices and Export Unit Values	186
Quantity-Price Relations Derived from Wholesale Price Indexes	191
Summary	194
 PART FOUR. PRODUCT REPORTS	
<i>9. Iron and Steel</i>	199
Trade	199
Nonprice Factors in Trade	203
Price Changes	207
Comparisons with Other International Price Data	211
Comparisons with Domestic Prices	215
Price Competitiveness	218
Price Levels	221
Summary	223
<i>10. Nonferrous Metals</i>	224
Nonferrous Metals as a Whole	227
International Price Indexes	227
Price Competitiveness	229
Price Levels	229
Comparisons with Wholesale Price and Unit Value Data	230
Factors Affecting Competitiveness in Individual Metal Groups	233
Geographical Influences	234
Institutional Influences	235
Copper	242

Aluminum	248
Other Nonferrous Metals	252
Nickel	252
Silver and Platinum Metals	254
Zinc	256
Tin	260
Miscellaneous Nonferrous Metals	263
Conclusions	263
<i>11. Metal Manufactures, n.e.s.</i>	267
Trade	267
Price Trends	274
Price Competitiveness	275
Price Levels	276
Summary	280
<i>12. Nonelectrical Machinery</i>	281
Aircraft Engines and Parts	285
Trade	285
Price Changes	288
Price Competitiveness	290
Internal Combustion Engines Other Than for Aircraft	292
Trade	292
Price Levels and Price Competitiveness	296
Price Levels	297
Agricultural Machinery and Implements	299
Trade	299
Price Trends and Levels	303
Office Machines	307
Trade	307
International Price Indexes	309
Price Competitiveness	312
Price Levels	313
Prices and the Pattern of Trade	315
Summary	319
Metalworking Machine Tools	320
Trade	320
Price Trends	325
Price Competitiveness	326
Price Levels	328
Textile and Leather Machinery	331
Trade	331
Textile Machinery	331
Machinery for Hides, Skins, and Leather	335

Contents

xv

Sewing Machines	336
Textile and Leather Machinery as a Whole	338
Mechanical Handling Equipment	339
Trade	339
Price Trends	342
Price Levels	343
Price Competitiveness	345
Appendix: Price Estimates Based on Regression Analysis	346
Aircraft Engines	346
Outboard Motors	352
U.S. Tractors	357
<i>13. Electrical Machinery, Apparatus, and Appliances</i>	362
Electric Power Machinery and Switchgear	367
Trade	367
Nonprice Influences on Trade	370
Price Competitiveness	372
Price Levels	375
Price Trends	379
Electricity Distribution Equipment	382
Trade	382
Price Trends	384
Price Levels	385
Price Competitiveness	387
Telecommunications Equipment	388
Trade	388
Price Trends	393
Price Competitiveness	395
Price Levels	397
Household Electrical Equipment	400
Trade	400
Price Trends	403
Price Competitiveness	405
Price Levels	406
Appendix: Regression Analysis of Power Transformer Prices	408
<i>14. Transport Equipment</i>	422
Railway Vehicles	425
Trade	425
Nonprice Factors in Trade	429
Price Trends	432
International Price Levels	435
Price Competitiveness	437
Road Motor Vehicles	439

Trade	439
Price Trends	445
Price Levels	449
Aircraft	453
Trade	453
Nonprice Factors in Trade	456
Price Trends	458
Price Levels	460
Price Competitiveness	462
Ships and Boats	463
Trade	463
Nonprice Factors in Trade	466
Prices	468
Appendixes	473
Comparisons Among Various Measures of Diesel Locomotive Price Trends	473
Regression-based International Price Index for Japanese Ships	478
<i>15. Passenger Motor Cars</i>	484
Background	484
Time-to-time Changes in Domestic Automobile Prices	486
Data	486
Independent Variables	492
Scope and Form of the Regressions	497
Time-to-time Movement of Domestic Automobile Prices	498
International Comparisons of Automobile Prices, 1964	508
Home Market Comparisons	508
Comparisons in Selected Markets	519
Summary of International Comparisons	529
PART FIVE. APPENDIXES	
<i>A. Trade Data for 1963</i>	533
<i>B. OECD Exports, 1953-64</i>	568
<i>C. International Price Indexes</i>	599
<i>D. Indexes of Price Competitiveness</i>	640
<i>E. Price Level Indexes</i>	663
<i>F. Indexes from Wholesale Prices and Related Data</i>	691
<i>G. Indexes from U.S. Export Unit Value Data</i>	724
Index	727

Tables

1.1	OECD Exports of Machinery, Transport Equipment, Metals, and Metal Products, by Origin, Destination, and Commodity Division, 1963 and by Origin, 1953, 1957, 1961-64	13
2.1	International Prices, Price Competitiveness, and Price Levels of All Covered Commodities, 1953, 1957, 1961-64	20
	<i>Machinery, Transport Equipment, Metals, and Metal Products, 1953, 1957, 1961-64</i>	
2.2	International Prices	21
2.3	U.S. Price Competitiveness	22
2.4	Price Levels	24
2.5	Comparison of International Price Indexes Based on Various Country Weights, All Covered Commodities, 1953, 1957, 1961-64	28
3.1	Transport Costs for U.S. Imports of Metals, Metal Products, and Machinery, 1965	49
3.2	Average Tariff Rates, 1962	54
4.1	International Price Indexes Under Two Methods of Aggregation, All Covered Commodities, 1953, 1957, 1961-64	88
	<i>Automotive Diesel Engines</i>	
5.1	Summary of Data, 1962	106
5.2	Price Comparisons Based on Alternative Criteria for Pooling: Double Log Equations	113
	<i>Regression Coefficients for Automotive Diesel Engine Prices</i>	
5.3	Pooled Equations with No Allowance for Country Differences in Element Coefficients	116
5.4	Pooled and Individual Country Regressions	118
6.1	MacDougall's Estimates of Product Elasticities of Substitution, Selected Years, 1913-59	145
7.1	Distribution of U.S. Exports and Survey Data, 1964	152
7.2	Relative Importance of Factors Explaining U.S. Export Success	153
7.3	Alternative Test of Relative Importance	155
7.4	Factors Accounting for Factory Equipment Trade: German Imports vs. U.S. Exports, 1964	156
7.5	Relative Shipment Delay for Standard Specifications and Capacity Utilization, Europe, Japan, and the United States, 1953-64	160
7.6	Relative Delivery Time for Goods Offered in International Bidding, 1961-64	162
8.1	U.S. Wholesale Price Indexes Based on Domestic Weights vs. U.S. International Price Indexes Based on International Weights, 1953, 1957, 1961-64	172

8.2	Comparison of Price Indexes from International and Wholesale Price Data, International Weights, 1953, 1957, 1961-64	174
8.3	Aggregation of Ratios of Wholesale to International Price Indexes, 1953, 1957, 1961-64	181
	<i>U.S. Price Competitiveness, 1953, 1957, 1961-64</i>	
8.4	Comparison of Indexes from International and Wholesale Price Data	183
8.5	Aggregation of Ratios of Wholesale-price-based to International-price-based Indexes	185
8.6	Comparison of U.S. Price Indexes from International Price and Export Unit Value Data, 1953, 1957, 1961-64	187
8.7	Aggregation of Ratios of Unit Value to International Price Indexes, United States, 1953, 1957, 1961-64	188
8.8	Machinery: NBER International Price Indexes vs. UN Export Unit Value Indexes, 1953, 1957, 1961-64	190
	<i>Iron and Steel (SITC 67)</i>	
9.1	OECD Exports, by Origin, Destination, and Commodity Group, 1963	200
9.2	OECD Exports, 1953, 1957, 1961-64	204
9.3	International Prices, 1953, 1957, 1961-64	208
9.4	Distribution of Year-to-year Percentage Price Changes in Subgroups, 1961-64	210
9.5	Price Indexes Based on Alternative Types of Price Data, 1953, 1957, 1961-64	212
9.6	U.S. Price Competitiveness, 1953, 1957, 1961-64	218
9.7	U.S. Price Competitiveness Indexes Based on Alternative Types of Price Data, 1953, 1957, 1961-64	219
9.8	Price Levels, 1953, 1957, 1961-64	222
	<i>Nonferrous Metals (SITC 68)</i>	
10.1	OECD Exports, by Origin, Destination, and Commodity Group, 1963	225
10.2	OECD Exports, 1953, 1957, 1961-64	228
10.3	International Prices, 1953, 1957, 1961-64	229
10.4	U.S. Price Competitiveness, 1953, 1957, 1961-64	229
10.5	Price Levels, 1953, 1957, 1961-64	230
10.6	Price Indexes: NBER, Domestic, and Unit Value, 1953, 1957, 1961-64	231
10.7	Major Nonferrous Metals: Geographical Distribution of and Changes in Production and Consumption, 1954 and 1963	237
	<i>International Prices, Price Competitiveness, and Price Levels, 1953, 1957, 1961-64</i>	
10.8	Copper	246

10.9	Aluminum	251
10.10	Copper, Aluminum, and Lead: Ranking of Export Value and Price Ratios, United Kingdom to United States, EEC to United States, and United Kingdom to EEC	266
	<i>Metal Manufactures, n.e.s. (SITC 69)</i>	
11.1	OECD Exports, by Origin, Destination, and Commodity Group, 1963	268
11.2	Ratios of U.S. Exports to Manufacturers' Shipments and U.S. Imports to New Supply (Output plus Imports), 1964	270
11.3	OECD Exports, 1953, 1957, 1961-64	273
11.4	International Prices, 1953, 1957, 1961-64	274
11.5	U.S. Price Competitiveness, 1953, 1957, 1961-64	275
11.6	Price Levels, 1953, 1957, 1961-64	276
	<i>Nonelectrical Machinery (SITC 71)</i>	
12.1	OECD Exports, by Origin, Destination, and Commodity Group, 1963	282
12.2	OECD Exports, 1953, 1957, 1961-64	284
12.3	International Prices, Price Competitiveness, and Price Levels, 1953, 1957, 1961-64	285
	<i>Aircraft Engines and Parts (SITC 711.4)</i>	
12.4	OECD Exports, by Origin and Destination, 1963	286
12.5	International Prices, 1953, 1957, 1961-64	289
12.6	U.S. Price Competitiveness Relative to the United Kingdom, 1957, 1961-64	290
12.7	U.K. Price Level Relative to the United States, 1957, 1961-64	292
	<i>Internal Combustion Engines Other Than for Aircraft (SITC 711.5)</i>	
12.8	OECD Exports, by Origin, Destination, and Type of Engine, 1963	293
12.9	OECD Exports, 1953, 1957, 1961-64	296
12.10	International Prices and U.S. Price Competitiveness, 1953, 1957, 1961-64	297
12.11	Price Levels, 1962	298
	<i>Agricultural Machinery and Implements (SITC 712)</i>	
12.12	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	300
12.13	OECD Exports, 1961-64	303
12.14	International Prices, 1953, 1957, 1961-64	304
12.15	U.S. Price Competitiveness, 1953, 1957, 1961-64	305
12.16	International Price and Price Competitiveness Indexes Based on Wholesale Price Data, 1953, 1957, 1961-64	305

	<i>Office Machines (SITC 714)</i>	
12.17	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	308
12.18	OECD Exports, 1953, 1957, 1961-64	310
12.19	International Prices, 1953, 1957, 1961-64	310
12.20	U.S. International Prices: NBER Index vs. Indexes from Wholesale Price and from Unit Value Data, 1953, 1957, 1961-64	311
12.21	U.S. Price Competitiveness, 1953, 1957, 1961-64	313
12.22	Price Levels, 1953, 1957, 1961-64	314
12.23	Relation of Price Ratios to Export Shares and Export-Import Ratios, 1963	316
	<i>Metalworking Machine Tools (SITC 715.1)</i>	
12.24	OECD Exports, by Origin, Destination, and Type of Tool, 1963	322
12.25	OECD Exports, 1953, 1957, 1961-64	324
12.26	International Prices, 1953, 1957, 1961-64	325
12.27	U.S. Price Competitiveness, 1953, 1957, 1961-64	327
12.28	Price Levels, 1953, 1957, 1961-64	329
	<i>Textile and Leather Machinery (SITC 717)</i>	
12.29	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	332
12.30	OECD Exports, 1961-64	334
12.31	International Prices, Price Competitiveness, and Price Levels, Textile Machinery, 1953, 1957, 1961-64	334
12.32	U.S. Exports and Unit Values of Industrial Sewing Machines, 1964	337
12.33	International Prices and Price Competitiveness, Sewing Machines, 1953, 1957, 1961-64	337
12.34	International Prices, Price Competitiveness, and Price Levels, Textile and Leather Machinery, 1953, 1957, 1961-64	338
	<i>Mechanical Handling Equipment (SITC 719.3)</i>	
12.35	OECD Exports, by Origin, Destination, and Commodity Item, 1963	340
12.36	OECD Exports, 1961-64	341
12.37	International Prices, 1953, 1957, 1961-64	342
12.38	Price Levels, 1953, 1957, 1961-64	343
12.39	U.S. Price Competitiveness, 1953, 1957, 1961-64	346
12.40	Regression Analysis of Aircraft Engine Prices	350
	<i>Outboard Motors, 1962 and 1963</i>	
12.41	Number of Observations and Average Horsepower	353
12.42	Regressions	355
12.43	Comparative Prices, Based on Pooled Regressions	356

	<i>Tractors, 1953, 1957, 1961-64</i>	
12.44	Coefficients of Regressions	359
12.45	Price Indexes Derived from Regressions	359
	<i>Electrical Machinery, Apparatus, and Appliances (SITC 72)</i>	
13.1	OECD Exports, by Origin, Destination, and Commodity Group, 1963	363
13.2	OECD Exports, 1953, 1957, 1961-64	365
13.3	International Prices, Price Competitiveness, and Price Levels, 1953, 1957, 1961-64	366
	<i>Electric Power Machinery and Switchgear (SITC 722)</i>	
13.4	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	368
13.5	OECD Exports, 1953, 1957, 1961-64	369
13.6	U.S. Price Competitiveness, 1957, 1961-64	373
13.7	Price Levels, 1957, 1961-64	376
13.8	International Prices, 1953, 1957, 1961-64	380
	<i>Electricity Distribution Equipment (SITC 723)</i>	
13.9	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	383
13.10	OECD Exports, 1961-64	384
13.11	International Prices, 1953, 1957, 1961-64	384
13.12	Price Levels, 1957, 1961-64	385
13.13	U.S. Price Competitiveness, 1953, 1957, 1961-64	387
	<i>Telecommunications Equipment (SITC 724)</i>	
13.14	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	389
13.15	OECD Exports, 1961-64	391
13.16	International Prices, 1953, 1957, 1961-64	393
13.17	U.S. Price Competitiveness, 1953, 1957, 1961-64	396
13.18	Price Levels, 1953, 1957, 1961-64	398
	<i>Household Electrical Equipment (SITC 725)</i>	
13.19	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	401
13.20	OECD Exports, 1961-64	403
13.21	International Prices, 1953, 1957, 1961-64	404
13.22	U.S. Price Competitiveness, 1957, 1961-64	405
13.23	Price Levels, 1957, 1961-64	406
	<i>Prices of Power Transformers</i>	
13.24	Arithmetic Regression Equations, All Observations	411
13.25	Arithmetic Regression Equations, Excluding Large Transformers	412
13.26	Logarithmic Regression Equations, All Observations	413

13.27	Logarithmic Regression Equations, Excluding Large Transformers	416
13.28	U.S. Indexes from Regression Equations	418
13.29	Comparison of Several U.S. Price Indexes	419
	<i>Transport Equipment (SITC 73)</i>	
14.1	OECD Exports, by Origin, Destination, and Commodity Group, 1963	423
14.2	OECD Exports, 1953, 1957, 1961-64	424
14.3	International Prices, Price Competitiveness, and Price Levels, 1953, 1957, 1961-64	425
	<i>Railway Vehicles (SITC 731)</i>	
14.4	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	427
14.5	OECD Exports, 1953, 1957, 1961-64	429
14.6	U.S. Exports of Diesel Locomotives, by Horsepower, 1953, 1957, 1961-64	430
14.7	International Prices, 1953, 1957, 1961-64	433
14.8	Price Levels, 1953, 1957, 1961-64	435
14.9	U.S. Price Competitiveness, 1953, 1957, 1961-64	437
	<i>Road Motor Vehicles (SITC 732)</i>	
14.10	OECD Exports, by Origin, Destination, and Commodity Subgroup, 1963	441
14.11	OECD Exports, 1953, 1957, 1961-64	443
14.12	International Prices, 1953, 1957, 1961-64	446
14.13	Official Wholesale and Export and NBER International Price Indexes, 1953, 1957, 1961-64	448
14.14	U.S. Price Competitiveness, 1953, 1957, 1961-64	450
	<i>Aircraft and Parts (SITC 734)</i>	
14.15	OECD Exports, by Subgroup, 1963, and by Year, 1953, 1957, 1961-64	454
14.16	International Prices, 1953, 1957, 1961-64	459
14.17	U.K. International Price Levels, 1957, 1961-64	461
14.18	U.S. Price Competitiveness, 1957, 1961-64	462
	<i>Ships and Boats (SITC 735)</i>	
14.19	OECD Exports, by Origin and Destination, 1963	464
14.20	Tonnage and Distribution of Ships Launched for Registration in Other Countries, 1953, 1957, 1961-64	466
14.21	International Prices, 1953, 1957, 1961-64	468
14.22	U.S. Price Competitiveness, 1953, 1957, 1961-64	470
14.23	Price Levels, 1953, 1957, 1961-64	471
	<i>Diesel Electric Locomotives</i>	
14.24	Comparison of U.S. Time-to-time Indexes from Various Sources, 1953, 1957, 1959, 1961-64	474

14.25	Comparison of Time-to-time Indexes from Bidding Data, 1959, 1961-64	477
14.26	Japanese Export Ship Contracts, Summary of Data, 1957, 1961-64	479
14.27	Ship Price Indexes Computed from Pooled Regressions, 1957, 1961-64	481
	<i>Passenger Cars</i>	
15.1	Output and Exports, 1953 and 1964	485
15.2	OECD Exports, by Origin and Destination, 1963	487
15.3	OECD Exports, 1953, 1957, 1961-64	488
	<i>Domestic Cars, 1953, 1957, 1961-64</i>	
15.4	Number of Models Included in Regressions Based on Domestic List Prices	489
15.5	Average Price and Characteristics of 1964 Models Included in Regressions	493
15.6	Price Relatives, Preferred Regressions	499
15.7	Price Indexes	500
15.8	Price Relatives, Comparison of Various Regression Estimates	501
15.9	Time-to-time Changes in Prices, NBER vs. Other Indexes	502
	<i>Changes in Standard Items Included in Car List Prices</i>	
15.10	Low-priced Four-door Chevrolet Sedan, 1953, 1956-64	504
15.11	Regular Four-door Buick Sedan, 1953, 1957, 1959-61	505
15.12	U.S. Price Competitiveness, Cars, 1953, 1957, 1961-64	507
15.13	International Comparisons of Domestic Car Price Levels, Based on Regression Analysis, 1964	509
	<i>Domestic Cars, Six OECD Countries, 1964</i>	
15.14	Regressions of Domestic Prices on Selected Characteristics	511
15.15	Number and Price per Horsepower Unit, by Horsepower Class	512
15.16	Number and Price per Pound, by Weight Class	513
15.17	Estimated Percentage Distribution of Car Production and NBER Sample, by Piston Displacement, Four European Countries, 1964	514
15.18	Specifications of Five Cars Taken as Representative of World Trade and Shares of Trade Represented	517
	<i>Price Comparisons for Five Makes of Car, 1964</i>	
15.19	Home-market Price Comparisons	518
15.20	Regression Comparisons of Home Prices and Prices on Four Other Markets	520
15.21	Export Price Level Comparisons Estimated from Regression Equations, Four Markets	523

15.22	Foreign-market as Percentage of Home-market Prices of Identical Cars, 1964	526
15.23	Expected vs. Actual Foreign-market Prices of Cars, 1964	528
15.24	Summary of Indicators of Relative Car Prices, 1964	529
<i>OECD Exports, by Country of Origin and Destination, 1963</i>		
A.1	All Covered Commodities	535
A.2	Iron and Steel (SITC 67)	537
A.3	Nonferrous Metals (SITC 68)	538
A.4	Metal Manufactures, n.e.s. (SITC 69)	539
A.5	Machinery Other than Electric (SITC 71)	540
A.6	Electrical Machinery, Apparatus, and Appliances (SITC 72)	542
A.7	Transport Equipment (SITC 73)	544
<i>OECD Exports, Value by Country of Origin and Subgroup, 1963</i>		
A.8	Iron and Steel (SITC 67)	546
A.9	Nonferrous Metals (SITC 68)	549
A.10	Metal Manufactures, n.e.s. (SITC 69)	551
A.11	Machinery Other than Electric (SITC 71)	554
A.12	Electrical Machinery, Apparatus, and Appliances (SITC 72)	562
A.13	Transport Equipment (SITC 73)	565
A.14	Miscellaneous Manufactured Articles (Selected Items from SITC 8)	567
<i>OECD Exports, by Country, for Two-digit SITC Divisions, 1953, 1957, 1961-64, and Three-digit Groups, 1961-64</i>		
B.1	Iron and Steel (SITC 67)	570
B.2	Pig Iron, Ferro-alloys, etc. (SITC 671)	570
B.3	Ingots and Other Primary Forms of Iron and Steel (SITC 672)	571
B.4	Iron and Steel Bars, Rods, Angles, Shapes, and Sections (SITC 673)	571
B.5	Universals, Plates, and Sheets of Iron or Steel (SITC 674)	572
B.6	Hoop and Strip of Iron or Steel (SITC 675)	572
B.7	Rails and Railway Track Construction Material of Iron and Steel (SITC 676)	573
B.8	Iron and Steel Wire, Excluding Wire Rod (SITC 677)	573
B.9	Tubes, Pipes, and Fittings of Iron or Steel (SITC 678)	574
B.10	Nonferrous Metals (SITC 68)	574
B.11	Silver, Platinum, and Other Metals of the Platinum Group (SITC 681)	575
B.12	Copper (SITC 682)	575
B.13	Nickel (SITC 683)	576
B.14	Aluminum (SITC 684)	576
B.15	Lead (SITC 685)	577

B.16	Zinc (SITC 686)	577
B.17	Tin (SITC 687)	578
B.18	Miscellaneous Nonferrous Base Metals Employed in Metallurgy (SITC 689)	578
B.19	Manufactures of Metals, n.e.s. (SITC 69)	579
B.20	Finished Structural Parts and Structures, n.e.s. (SITC 691)	579
B.21	Metal Containers for Storage and Transport (SITC 692)	580
B.22	Wire Products (Excluding Electric) and Fencing Grills (SITC 693)	580
B.23	Nails, Screws, Nuts, Bolts, Rivets, and Similar Articles of Iron, Steel, or Copper (SITC 694)	580
B.24	Tools for Use in the Hand or in Machines (SITC 695)	581
B.25	Cutlery (SITC 696)	581
B.26	Household Equipment of Base Metals (SITC 697)	581
B.27	Manufactures of Metals, n.e.s. (SITC 698)	582
B.28	Machinery Other than Electric (SITC 71)	582
B.29	Internal Combustion Engines Other than for Aircraft (SITC 711.5)	583
B.30	Agricultural Machinery and Implements (SITC 712)	583
B.31	Office Machines (SITC 714)	584
B.32	Metalworking Machine Tools (SITC 715.1)	584
B.33	Metalworking Machinery Other than Machine Tools (SITC 715.2)	585
B.34	Textile and Leather Machinery (SITC 717)	585
B.35	Machines for Special Industries (SITC 718)	586
B.36	Paper Mill and Pulp Mill Machinery, etc. (SITC 718.1)	586
B.37	Printing and Bookbinding Machinery (SITC 718.2)	586
B.38	Food-processing Machinery (SITC 718.3)	587
B.39	Construction and Mining Machinery, n.e.s. (SITC 718.4)	587
B.40	Mineral Crushing, Sorting, and Molding Machinery, etc. (SITC 718.5)	588
B.41	Pumps and Centrifuges (SITC 719.2)	588
B.42	Mechanical Handling Equipment (SITC 719.3)	589
B.43	Power Tools, n.e.s. (SITC 719.5)	589
B.44	Other Nonelectrical Machines (SITC 719.6 and 719.8)	590
B.45	Electrical Machinery, Apparatus, and Appliances (SITC 72)	590
B.46	Electric Power Machinery and Switchgear (SITC 722)	591
B.47	Equipment for Distributing Electricity (SITC 723)	591
B.48	Telecommunications Equipment (SITC 724)	592
B.49	Household Electrical Equipment (SITC 725)	593
B.50	Electrical Apparatus for Medical Purposes, etc. (SITC 726 and 729)	593
B.51	Transport Equipment (SITC 73)	593
B.52	Railway Vehicles (SITC 731)	594

B.53	Road Motor Vehicles (SITC 732)	595
B.54	Road Vehicles Other than Motor Vehicles (SITC 733)	596
B.55	Aircraft and Parts (SITC 734)	597
B.56	Ships and Boats (SITC 735)	597
B.57	Sanitary, Plumbing, Heating, and Lighting Fixtures and Fittings (SITC 812)	598
<i>International Price Indexes, 1953, 1957, 1961-64</i>		
C.1	Iron and Steel	600
C.2	Nonferrous Metals	608
C.3	Metal Manufactures, n.e.s.	610
C.4	Machinery Other than Electric	613
C.5	Electrical Machinery, Apparatus, and Appliances	626
C.6	Transport Equipment	632
C.7	Miscellaneous Manufactured Articles	637
<i>Indexes of U.S. Price Competitiveness, 1953, 1957, 1961-64</i>		
D.1	Iron and Steel	641
D.2	Nonferrous Metals	644
D.3	Miscellaneous Metal Manufactures, n.e.s.	645
D.4	Machinery Other than Electric	648
D.5	Electrical Machinery, Apparatus, and Appliances	655
D.6	Transport Equipment	659
D.7	Miscellaneous Manufactured Articles	662
<i>Price Level Indexes, 1953, 1957, 1961-64</i>		
E.1	Iron and Steel	664
E.2	Nonferrous Metals	668
E.3	Miscellaneous Metal Manufactures	669
E.4	Machinery Other than Electric	672
E.5	Electrical Machinery, Apparatus, and Appliances	683
E.6	Transport Equipment	687
E.7	Miscellaneous Manufactured Articles	689
<i>Indexes from Wholesale Prices, 1953, 1957, 1961-64</i>		
F.1	Iron and Steel	693
F.2	Nonferrous Metals	696
F.3	Metal Manufactures, n.e.s.	698
F.4	Machinery Other than Electric	700
F.5	Electrical Machinery, Apparatus, and Appliances	704
F.6	Transport Equipment	706
F.7	Miscellaneous Manufactured Articles	708
<i>Indexes of U.S. Price Competitiveness Computed from Domestic Wholesale Price Series, 1953, 1957, 1961-64</i>		
F.8	Iron and Steel	710
F.9	Nonferrous Metals	712
F.10	Metal Manufactures, n.e.s.	713

Tables and Charts

xxvii

F.11	Machinery Other than Electric	715
F.12	Electrical Machinery, Apparatus, and Appliances	718
F.13	Transport Equipment	720
F.14	Miscellaneous Manufactured Articles	721
F.15	German Producers' Price Indexes, 1957, 1961-64	722
G.1	Indexes from U.S. Export Unit Value Data, 1953, 1957, 1961-64	725

Charts

13.1	Indexes of U.S. Power Transformer Prices, 1953-64	418
14.1	Price Competitiveness and Export Shares in Locomotives, United States and Germany, 1957, 1961-64	438

