

ECONOMIC DEVELOPMENT  
IN  
ASIAN PERSPECTIVE

---

SHIGERU ISHIKAWA

*Professor of Economics*

*The Institute of Economic Research  
Hitotsubashi University*

ECONOMIC RESEARCH SERIES

No. 8

THE INSTITUTE OF ECONOMIC RESEARCH  
HITOTSUBASHI UNIVERSITY

KINOKUNIYA BOOKSTORE CO., LTD.

Tokyo, Japan

Copyright © 1967 by SHIGERU ISHIKAWA

Published in 1967

## PREFACE

The basic idea behind the studies in this monograph is the notion that, *firstly*, the initial conditions limiting the economic development of the contemporary developing countries significantly differ in a number of respects from those of the presently developed countries in their past development stage; *secondly*, such differences tend in net result to make the course of contemporary economic development much more difficult than was previously the case; and *thirdly*, the experience of past economic development, or the economic development formulae summarized on its basis, may not serve as a lesson to the contemporary developing countries for overcoming these difficulties. This book represents an attempt to evaluate some of the basic features of contemporary economic development under the impact of such initial conditions. It also attempts to identify broad patterns of the developmental strategies suited to these initial conditions.

Although the aim of the study in this book is thus directed toward contemporary economic development in general, the empirical data on which the discussion is based are confined to those of the developing countries in Asia. This is because this region is the one in which the author was born and raised and, hence, the only region with which he is comparatively well acquainted. For the same reason, the reference of the experience of the presently developed countries in their past economic development is confined to that of Japan since the *Meiji* era. While this approach certainly limits the universality of derived

Printed by  
Kato Bunmeisha Printing Co., Ltd.  
Tokyo, Japan

observations and conclusions, in the present stage of the discussions in economics on the problems of economic development, such a regional approach seems to have some positive significance.

In the following, Chapter 1 elaborates the basic idea indicated above. The initial conditions particular to the contemporary developing countries in Asia are described, and as a most aggregate indicator of the impact of such initial conditions, a possibility is observed for the potential rate of economic growth of these countries to lag behind the minimum rate of growth that is required for successful economic development. As one of these initial conditions, Chapter 2 focusses attention on the lack of basic investment in agricultural land, such as flood control, irrigation and drainage. How this lack affects the increase in land productivity and how an increased application of fertilizer may serve as a substitute for basic investment are analysed. The findings thereof lead us to a further study of the capital requirements for basic investment. This is made essentially in terms of the choice problem among projects involving different techniques, different capital requirements and different means of organization of the peasant sector. The considerable capital requirements of increased fertilizer application, either in the form of the extension of agricultural credit or in the form of an increase in the relative price of farm products, are also discussed.

Chapter 3 deals with the underemployment in the farm sector, which is a most distinct result of another initial condition: an existing surplus of labor in the economy combined with a high rate of population increase. Together with the output-increasing effect of additional labor input, the behavior of the peasant farm household with respect to the self-employment of family labor is analyzed. In the latter, emphasis is placed on exploring the mechanism by which the increase in the self-employment of family labor for local projects of basic investment is induced by population increase and government subsidies. Policy measures for absorbing surplus labor for the productive purposes are discussed on the basis of these findings. Chapter 4 discusses a

commonly-held proposition that the early phase of industrialization must be financed largely from a net resource outflow from the agricultural sector. Empirical studies are attempted to test this proposition by comparing the relevant statistical data of a few contemporary countries with those of prewar Japan. The determinants of net resource flow between the farm and nonfarm sectors are further analysed both theoretically and empirically. As a conclusion, it is indicated that, due to the unfavorable initial conditions, the net resource flow between the two sectors in the process of contemporary economic development is likely to be a net inflow into the farm sector. Even if it be a net outflow, its magnitude is likely to be rapidly reduced and eventually turned into a net inflow as economic development proceeds.

Chapter 5 deals with the development of the manufacturing sector, also under the impact of the initial conditions particular to the contemporary developing countries. Together with the initial conditions common to all the sectors of the economy, those specific to the manufacturing sector are explored, such as the effects of recent technological progress in the industrialized countries and of the changing structure of world trade with the developing countries. These initial conditions suggest that contemporary economic development must be brought about through a more complicated, dualistic process than before, and the choice of techniques and organization must be made in a much more selective and articulate way. On this premise, detailed examinations are made with regard to the existing pattern of the choice of technologies and techniques in each industrial branch and in each sector with distinct behavioristic features (i.e., the cottage sector, the factory sector etc.). In the cottage sector, the prevailing technologies in use are found to be limited by two conditions: the amount of capital needed must not be so large as to be beyond the means of the family enterprise and the amount of earnings derived must be sufficient for maintaining family living expenses. It is stressed that the own investment of the cottage sector is induced by government subsidies in a way similar to

PREFACE

that in the peasant sector. In the factory sector, it is found most important to note that, in some branches where technical progress is most rapid, the choice of particular industries is almost identical to the choice of particular techniques, since in these branches the economies of large-scale production assume a role of paramount importance.

These chapters represent a revised version of my articles which have been published in the issues of *Keizai Kenkyu* (Economic Research), a journal of the Institute of Economic Research, Hitotsubashi University, between 1960 and 1966. Throughout the studies connected with these articles, I have benefitted from the suggestions, comments and stimulus given by the members of the staff of the Institute of Economic Research. Special mention should be made of the continuous discussion which I have been able to make with Professor Kazushi Ohkawa on the subject of the Japanese experience and its relevance to the contemporary developing countries in Asia. This discussion has enabled me to identify various points of ambiguity and to obtain stimulus for further studies.

I have also received valuable comments and criticisms in various stages of the studies from Professors Martin Bronfenbrenner, Colin Clark, Maurice Dobb, Robert F. Dernberger, Alexander Eckstein, Shozaburo Fujino, Yujiro Hayami, Kenzo Henmi, Yoichi Itagaki, Dale Jorgenson, Shigeto Kawano, Yukio Kumashiro, Yoshimasa Kurabayashi, Simon Kuznets, T.H. Lee, William W. Lockwood, Harendra K. Mazmdar, Hla Myint, Yuji Muramatsu, Tsutomu Noda, Tsutomu Ohuchi, Harry T. Oshima, Gustav F. Papanek, Hugh T. Patrick, K.N. Raj, Miyoei Shinohara, Daniel Thorner, Shigeto Tsuru, and Mataji Umemura. Taking this opportunity, I would like to express my deep appreciation to them. I am also indebted to the library of the Institute of Asian Economic Affairs, Tokyo, and the Research and Statistics Section of the Ministry of Agriculture and Forestry which allowed me access to the books and research materials held by them.

PREFACE

I am indebted to Professor Norman Sun, Dr. John R. McEwan and Messrs. Bernard Key, Victor Lippit and Konosuke Odaka for sparing valuable time in the correction of my English. I am particularly grateful to Mr. Lippit who has very carefully read through all the chapters in the manuscript and brought about a considerable improvement upon the English expressions. I would like also to express my appreciation to Mr. Katsumi Kawashima of Kinokuniya Bookstore Co. for his patient cooperation in troublesome matters relating to the publication of this monograph.

I wish to acknowledge the receipt of research funds for the above studies from the Science Research Fund and the Special Fund for Research on Asia of the Ministry of Education, the Japanese Government. I have also benefitted greatly from the use of the source materials which the Institute of Economic Research, Hitotsubashi University, was able to collect with the receipt of a grant from the same Funds. I also wish to acknowledge the receipt of a grant from the Tokyo Shoka Daigaku Zaidan (Tokyo University of Commerce Fund) which made possible the publication through Kinokuniya Bookstore Co. of this book. The English translation of the original version of Chapter 2 was supported by the Ford Foundation as part of a project promoting translation of Japanese economic studies.

SHIGERU ISHIKAWA

March 1967  
Kunitachi

## CONTENTS

PREFACE	. . . . .	i
CHAPTER 1. INITIAL CONDITIONS	. . . . .	1
1. Introduction		1
2. The Integral Process of Economic Development		3
3. Initial Conditions in the Contemporary Asian Context		9
Per-capita Income 10. Population and Labor Force 11. Productivity in Peasant Agriculture 19. Industrial Technologies and Techniques 22. Foreign Trade Restrictions 24. Institutional Changes 26.		
4. Required Rate of Growth and Potential Rate of Growth		30
Basic Points of a Structural Model 30. Impacts of Initial Conditions 35. Examples of Required and Potential Growth Rates 39.		
APPENDIX 1A A SIMPLE STRUCTURAL MODEL DESCRIBING CONTEMPORARY ECONOMIC DEVELOPMENT		46
CHAPTER 2. BASIC INVESTMENT AND STRATEGIES FOR AGRICULTURAL DEVELOPMENT	. . . . .	57
1. Initial Conditions Specific to Asian		

CONTENTS

Agriculture	57
Virtual Disappearance of the Arable Land Frontier 61. Rice Culture and Basic Investment in Land 69. The Nature of the Contemporary Problems of Asian Agriculture 78.	
2. Irrigation and Fertilizer—An Analysis of “Leading Inputs”	84
Cross-sectional Studies 87. The Historical Experience of Japan, Korea and Taiwan 94. Factors behind the Postwar Increase in Yields 109. Fertilizer Trial Data 118.	
3. Economic Conditions for Basic Investments	123
Agriculture in Government Development Outlay 124. Major and Minor Projects 131. The Problem of Choice 137. Patterns of Public Investment in Irrigation 149.	
4. Economic Conditions for Fertilizer Input	153
Profitability of Expanding Use of Fertilizer 156. Where Does ‘Advance’ Capital Come From? 166. Behavior of Subsistence Farmers 173. Usefulness of the Japanese Lessons 180.	
APPENDIX 2A COUNTRY-BY-COUNTRY STUDIES ON LEADING INPUTS	185
CHAPTER 3. FARM LABOR AND UNDEREMPLOYMENT	215
1. Introduction	215
2. Contribution of Additional Labor Input to Agricultural Output	216
Relations between Observed Labor Input and Output in Rice Cultivation 217. Relations between Observed Labor Input and Output in Total Crop Production 224. Relation between Observed Labor Input and Other Material Inputs 232. Magnitude of Labor Input by Type of Work 240. Tentative Conclusion 247.	

CONTENTS

3. Peasant’s Behavior with regard to Self-employment of Labor	249
Self-employment of Labor and Disguised Unemployment 250. Some Empirical Evidence 257.	
4. Total Employment and the Structure of the Farm Labor Force	267
Labor Absorbing Capacity of Agricultural Work 267. Demand for Farm Labor from Non-agricultural Production 274. Surplus Labor and the Measures for its Absorption 283.	
CHAPTER 4. NET RESOURCE FLOW BETWEEN AGRICULTURE AND INDUSTRY	290
1. Introduction	290
The So-called Japanese Experience 291.	
2. Contrasting Patterns of Net Resource Flow	294
Statistical Concepts 295. Resource Flow in Current Prices 305. Resource Flow in Real Prices 321.	
3. Determinants of Net Resource Flow	326
Analysis Based on a Structural Model 328. Further Considerations on the Determinants 336. Concluding Remarks 344.	
APPENDIX 4A An Analysis of the Determinants of Net Resource Flow	348
CHAPTER 5. TECHNOLOGICAL PROGRESS AND DUALISTIC INDUSTRIAL DEVELOPMENT	357
1. Initial Conditions Specific to Contemporary Industrial Development	357
Industrialization as a Dualistic Process 358. Features of Technological Progress 367. Changes in the Structure of Industry and	

CONTENTS

Foreign Trade 371. The Nature of the Problem 384.

2. Size Structure and Economic Progress 388  
 Methodology and the Data Problem 388.  
 Size Structure of Entire Manufacturing Industry 392. Correlations with Economic Progress 400. Declining Cottage Ratio and Technological Differential 407. Electrification and its Impact upon the Factory Sector 417.

3. Cottage Sector and the Choice of Industries 422  
 By-industry Cottage Ratio and Industrial Component Ratio 423. Technological Differentials and the Employment Factor 428.

4. Factory Sector and the Economies of Large-Scale Production 437  
 Industries with or without Prevailing Size 439. Relation with the Optimum Size Classes 449. Importance of the Scale Factor 456.

5. Concluding Remarks 463

BIBLIOGRAPHY ON STATISTICAL DATA . . . . . 469

INDEX . . . . . 483

TABLES

1-1 Projected Labor-Force and Employment: Mainland China and India . . . . . 14

1-2 Planned Annual Rates of Growth of National Income, Per-capita Income and Population in the National Economic Plans and their Actual Results: Selected Asian Countries . 43

1-3 Annual Rates of Growth of National Income and Population in the Approximate Development Period of the Industrialized Countries . 45

2-1 Percentage Distribution of Cropped Area by Major Crops: Asia in Comparison with Other Continents, 1960-61 . . . . . 69

2-2 Comparison of Per-Crop-Hectare Yield of Selected Agricultural Products in Asian Countries: Average for 1955/56 through 1960/61 . . . . . 70

2-3 Gross Receipt, Income and Consumption Expenditure of Average Farm in 'Paddy Equivalent Units': India, Mainland China, Taiwan and Japan . . . . . 79

2-4 Correlations among Selected Inputs in Six Asian Countries . . . . . 91

2-5 Changes in Selected Agricultural Inputs in Taiwan: 1905-1939 . . . . . 103

2-6 Selected Indicators of Agricultural Inputs in Korea . . . . . 104

2-7 Postwar Changes in Agricultural Production, Cultivated Area, Irrigated Area and Use of Chemical Fertilizers: Selected Asian Countries . . . . . 106

TABLES

2-8	Annual Average Growth Rates of Total Production, Cropped Area and Yield of Paddy: Selected Asian Countries, during the Years between 1954-56 and 1961-63/64 . . . . .	109
2-9	Relative Contribution of Selected Inputs to Overall Increase in Food Grain Output in National Economic Plan: India and Mainland China . . . . .	114
2-10	Relative Contribution of Irrigated and Unirrigated Land to the Increase in Food Grain Production in an Indian Perspective Plan (1955/56-1975/76) . . . . .	115
2-11	Changes in the Estimated Capacity and Efficiency of Fertilizer during the 1920's to the 1950's as Shown in the Daily Record of a Farm in the <i>Tohoku</i> Region in Japan . . . . .	122
2-12	Relative Weight of Disbursement in Agriculture and Water Conservancy in Total Government Development Outlays in the Economic Development Plan: Selected Asian Countries . . . . .	125
2-13	Relative Weight of Disbursement in Agriculture and Water Conservancy in Total Government Development Outlays and its Components: Mainland China and India . . . . .	126
2-14	Public Investment (Fixed Capital) in Agriculture and Riparian Construction in Japan . . . . .	128
2-15	Indicators of Capital Requirements for Irrigation Input on a Project Basis: India, Mainland China and Japan . . . . .	134
2-16	Proportion of Major and Minor Projects in Government Development Outlay on Irrigation: Mainland China and India . . . . .	150
2-17	Comparison of Chemical Fertilizer and Paddy or Rice Prices: Selected Asian Countries, 1960/61 . . . . .	154
2-18	Indices of Prices and Quantities in Use of Fertilizer in Comparison with Other Selected Indicators: Japan . . . . .	160

TABLES

2-19	Production Cost of Paddy and Expenses of Agricultural Operation by Cash and Home Prepared: India, Taiwan, South Korea and Japan . . . . .	164
2-20	Cultivator's Borrowing and Debt by Different Credit Agencies in India and Prewar Japan . . . . .	170
2A-1	National Average Values of Land Productivity, Irrigation Ratio and the Use of Fertilizers Obtained in the Data Used in this Appendix . . . . .	188
Appendix Table 2A-1	Average Cultivated Area Per Farm Household and Crop Yield Per Unit of Cultivated Area in Asian Countries . . . . .	213
3-1	Relation between Per-hectare Yield of Paddy and Per-hectare Labor and Other Material Inputs in Rice Cultivation: Selected Asian Countries, National Average . . . . .	219
3-2	Relation between Per-hectare Gross Crop Income, Per-hectare Labor Input, and Per-hectare Capital Stock in Total Crop Production: Selected Asian Countries, National Average . . . . .	226
3-3	Percentage of Total Crop Area Occupied by Different Crops: Selected Asian Countries . . . . .	228
3-4	Compositions of Material Input in Rice Cultivation: Selected Asian Countries, National Average; % of Total Value . . . . .	233
3-5	Distribution of Per-hectare Labor Input in Rice Cultivation by Broad Operation Patterns and by Large Zones: India and China, Mainland . . . . .	242
3-6	Absorption of Family Labor of Farm Households in Agricultural Work and its Relation to Cultivated Area Per Member of Farm Household: Selected Asian Countries . . . . .	270
3-7	Percentage Distribution of Total Working Days of Farm Family Worker by Type of Work . . . . .	275
3-8	Percentage Distribution of Total Gross Revenue of Farms by Type of Work . . . . .	276



TABLES

3-9	The Relation between the Proportion of Total Receipt of the Farm Household Obtained from Agricultural Production (Y) and the Agricultural Receipt Per Unit Labor Force of the Farm Household (X): Selected Asian Countries . . . . .	282
3-10	The Number of Hours Worked of Employed Persons in the Farm Households and the Proportions of Those Who Are Available for Additional Work during the Reference Week: India, the Philippines, South Korea and Japan . . . . .	287
4-1	External Transactions Accounts of the Farm Sector: India, Mainland China, Taiwan and Japan; Selected Postwar Years . . . . .	300
4-2	Saving and Investment of the Farm or Rural Sector: India, Taiwan and Japan; Postwar Years . . . . .	307
4-3	The External Transactions Account of the Farm Sector in Prewar Japan (Available Component Items Only) . . . . .	314
4-4	Net Resource Flow of the Farm Sector and Its Components: Mainland China, Taiwan and Japan . . . . .	322
5-1	Indicators of Industrial Development in Selected Asian Countries at around the Starting Points of Their Deliberate Industrialization Efforts . . . . .	360
5-2	Structures of Manufacturing Industry by Major Branches in Terms of Employment Distribution in Selected Countries of Asia: Postwar Years and, for Japan, Prewar Bench-Mark Years Included . . . . .	372
5-3	Commodity Structures of Exports and Imports in Selected Asian Countries: 1962 and Prewar Bench-Mark Years for Japan . . . . .	374

TABLES

5-4	Some Indicators of Gross Fixed Capital Formation: Contemporary Countries of Asia in 1962 and Prewar Japan . . . . .	382
5-5	Distribution of Employees (or Workers) Engaged in Manufacturing among Six Size Classes of Establishments: Selected Asian Countries, Postwar Years and, for Japan, Prewar Bench-Mark Years as Well . . . . .	394
5-6	Expansion of Differential in the Number of Horse-Power of Prime Movers per Unit of Establishment between the Small- and the Big-Size Groups: Japan, 1909-1955 . . . . .	413
5-7	The Percentage of the Number of Establishments Using Power to the Total Number of Establishments in Each Size Class . . . . .	418
5-8	Annual Per Capita Electricity Production of Selected Asian Countries . . . . .	419
5-9	Selected Indices by Techniques Affecting the Choice of Techniques in Cottage Industries: India's case . . . . .	432
5-10	Size Patterns of 19 Industries of 2-Digit in UN's ISIC: (Six Asian Countries and the U.S.) . . . . .	440
5-11	Size Patterns of 28 Industries of 3-Digit in UN's ISIC: (Japan for 1958, and India for 1956) . . . . .	447
5-12	Relation between the Modal Size, the Optimum Size and Technical Efficiency: India, Pakistan and the Philippines in 1957 . . . . .	454
5-13	Relation between the Size of Plant and the Costs of Construction and Production—Model Plants Data to be Constructed in the Countries of Asia . . . . .	461

## CHARTS

1-1	A Framework of Analyses in the Entire Process of Economic Development . . . . .	3
1-2	A Comparison of Growth Paths of National Income, Per-Capita Consumption and Unemployment under Different Assumptions . . . . .	40
1A-1	Marginal Productivity of Labor in Current Production . . . . .	49
1A-2	Marginal Productivity of Labor in Basic Investments . . . . .	50
1A-3	Flow-Chart Indicating the Interrelations among the Variables and Parameters Used in the Structural Model . . . . .	55
2-1	Expansion of Cultivated Area in Major Rice Exporting Countries or Areas in Asia, 1850-1950 . . . . .	62
2-2	Changes in Agricultural Cropped Area Per Male Actively Engaged in Agriculture (A UN Estimate) . . . . .	63
2-3	Relationship between Land Productivity and the Irrigation Ratio in Asia, Europe, the Near East and America . . . . .	74
2-4	Relation between Land Productivity and Per-farm Cultivated Area: Selected Asian Countries; (in Post-war Years and, for Japan, Taiwan and Korea, Historical Series) . . . . .	78
2-5	Long-term Changes in Per-hectare Yield of Rice: Japan, Taiwan and Korea . . . . .	95
2-6	Relation between the Growth Rate of Per-hectare Yield of Total Food Grains and Irrigation: India by Major States . . . . .	113

## CHARTS

2-7	Response of Rice Output to Nitrogen in Fertilizer Trial Data: Japan and Four Zones in India . . . . .	119
2-8	Long-term Changes in the Relative Price of Rice: Japan . . . . .	171
2A-1	India: Total Cultivated Areas, 1958-59 . . . . .	190
2A-2	India: Madras and West Bengal States . . . . .	192
2A-3	Ceylon: Inter-District Data of Paddy Fields . . . . .	197
2A-4	Thailand: Paddy, Inter-Provincial Data (1963) . . . . .	200
2A-5	Malaya: Inter-State Data . . . . .	203
2A-6	Taiwan: Inter-Prefectural Data . . . . .	208
2A-7	Japan: Inter-Prefectural Data . . . . .	211
3-1	Relations between Per-hectare Input of Labor, Per-hectare Paddy Yield and Per-hectare Material Inputs Other than Labor in Rice Cultivation: Selected Asian Countries; by Farm Groups with Different Sizes . . . . .	220
3-2	Relations between Per-hectare Input of Labor, Per-hectare Paddy Yield and Per-hectare Material Inputs Other than Labor in Rice Cultivation: Japan, <i>Tohoku</i> Region; by Farm Groups with Different Sizes . . . . .	224
3-3	Relations between Per-hectare Gross Crop Income and Per-hectare Labor Input in Total Agricultural Work: Selected Asian Countries . . . . .	230
3-4	Relations between Per-acre Labor Input and Per-acre Input Other than Labor: West Bengal and Madras; by Group of Farms with Different Sizes and with Different Extent of Irrigation; 1956-57 . . . . .	236
3-5	Relations between Per-hectare Labor Input and Per-hectare Input Other than Labor: Taiwan, Korea and Japan . . . . .	239

CHARTS

3-6	Distribution of Per-hectare Labor Input in Rice Cultivation by Type of Work: India, China, Mainland and Japan . . . . .	241
3-7	Supply Curve of Family Labor . . . . .	250
3-8	Determination of Self-employment of Labor . . . . .	255
3-9	Increase in Cultivated Area in Response to the Population Explosion: Thailand, by Changwad, 1940 to 1960 . . . . .	261
3-10	Long-term Changes in Per-hectare Agricultural Output in Response to Changes in Man-Land Ratio: India, China and Japan . . . . .	264
3-11	Relation between the Number of Working Days and Cultivated Area, Both Measured Per Member of Farm Labor Force: By Size-Class of Farm Data in Selected Asian Countries . . . . .	273
3-12	Relation between the Number of Working Days of Hired Agricultural Labor by Agricultural Laborer and Net Agricultural Income Per Capita Agricultural Population: by State Data of India . . . . .	278
4-1	A Comparison of Net Resource Flows and Marketable Ratios of the Farm Sector under Different Assumptions — Hypothetical Numerical Examples . . . . .	335
5-1	Distribution of Blast Furnaces in Operation as of End of 1960 by Design-Capacity and by the Year of Installment: Japan . . . . .	368
5-2	Comparison of the Size Structure of Manufacturing as a Whole in Selected Countries of Asia and the U.S.: in the 1950's . . . . .	400
5-3	Historical Changes in the Size Structure of Manufacturing as a Whole in Japan, (1909-1958 . . . . .	401
5-4	Relations between the Cottage Ratio and the Degree of Economic Progress . . . . .	402

CHARTS

5-5	Relation between the Ratio of 'Smaller' Size Establishments in the Factory Sector and Economic Progress . . . . .	404
5-6	Ratio of Employment in Big Size Group (500~) to Total Factory Employment—A Inter-Country Comparison . . . . .	406
5-7	Inter-Country Comparisons of the Cottage Ratios and the Industrial Component Ratios of the Cottage Sector: Postwar Years . . . . .	424
5-8	Changes Over Time of the Cottage Ratios by Industries and the Industrial Component Ratios of the Cottage Sector: Japan, 1909-1960 . . . . .	426
5-9	Distribution of Cottage Industries in Relation to Per-establishment Asset Size and Annual Income: Calcutta Industrial Area, 1954 . . . . .	435
5-10	Comparison of Size Structure of the Factory Sector by Selected Industries: Six Asian Countries and the U.S. . . . .	442
5-11	Historical Changes in Size Structure of Selected Industries in Japan: 1909-1962 . . . . .	445
5-12	Determination of the Optimum Size Unit . . . . .	450
5-13	Comparison of the Constant-Product Lines of Selected Industries in India, Pakistan, the Philippines and Japan: 1957 . . . . .	452
5-14	Relation between Profitability and the Scale of Production . . . . .	459
5-15	Finished Steel Production Costs by Components and Investment Per Ton-year in Relation to the Size of Plants . . . . .	462