



**ECONOMIC GROWTH AND
STRUCTURAL CHANGE
IN TAIWAN**

The Postwar Experience of
the Republic of China

edited by **WALTER GALENSON**

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Dedicated to the memory of
our friend and colleague

TA-CHUNG LIU

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Preface

The essays in this volume deal with various aspects of economic development in the Republic of China. The authors read and criticized one another's essays in preliminary draft and modified their own contributions in the light of the findings of their colleagues. An attempt was made to reconcile conflicts in the data, but differences in sources and interpretation at times prevented reconciliation. Each author has full and final responsibility for the contents of his chapter and no attempt has been made to reach a group consensus on the evaluation of Taiwan's policies and experience. Each one speaks for himself alone.

In planning the volume, we attempted to cover all major sectors and activities of the economy. But we did not intend, nor have we achieved, a complete history of Taiwan's economic development. Each author was encouraged to select, within the broad topics assigned, those elements in the growth process that impressed him as most interesting and as having the greatest potential value to students of economic development generally.

Many of the sources cited in English are printed in the Chinese language, and the authors did their best to obtain consistent translations. Some of the statistical material was provided by scholars in Taipei after discussion with the authors; these are mainly estimates not shown in regular statistical sources. For these reasons, and also because many of the publications are not available in the United States, it has not always been possible to achieve complete uniformity in citations.

This book could not have been written without the assistance and cooperation of scholars in the Republic of China. They interpreted the statistics in official yearbooks, provided bibliographical material, and arranged interviews and institutional visits during field trips to Taiwan. Their comments on preliminary drafts were very helpful. Among those most directly involved were Tzong-shian Yu, director of the Institute of Economics, Academia Sinica, who acted as coordinator in Taipei; Shirley W. Y. Kuo, Kuo-shu Liang, and

Chen Sun, National Taiwan University; Paul K. C. Liu, Institute of Economics, Academia Sinica; Yu-chu Hsu, National Cheng-chi University; and Yunkang Mao, Division of Agricultural Economics, Joint Commission on Rural Reconstruction. None of the foregoing, however, is in any way responsible for the interpretations that appear in the text. The authors are also indebted to the Economic Development Council, which provided us with office space and other assistance during our visits to Taiwan.

This project was sponsored by the Joint Council on Sino-American Cooperation in the Humanities and Social Sciences. This organization is composed of the China Council on Sino-American Cooperation in the Humanities and Social Sciences in the Republic of China and the Joint Committee on Sino-American Cooperation in the Humanities and Social Sciences of the American Council of Learned Societies and the Social Science Research Council in the United States.

We have dedicated this book to our friend and colleague, the late Professor Ta-chung Liu of Cornell University. He helped plan the volume and facilitate its execution. Even more significantly, he played a major role in the actual course of Taiwan's economic development.

WALTER GALENSON

Ithaca, New York

Contributors

Walter Galenson. Jacob Gould Schurman Professor of Economics, Cornell University. Author of *Rival Unionism in the United States* (1940); *Labor in Norway* (1949); *The Danish System of Labor Relations* (1952); *Labor Productivity in Soviet and American Industry* (1955); *The CIO Challenge to the AFL* (1960); *Trade Union Democracy in Western Europe* (1961); *The Quality of Labor and Its Impact on Economic Development* (with F. G. Pyatt) (1964); *A Primer on Employment and Wages* (1966); *The Chinese Economy under Communism* (with N. R. Chen) (1971).

Simon Kuznets. Recipient of the Nobel Prize in Economics, 1971. George F. Baker Professor of Economics Emeritus, Harvard University. Author of *Cyclical Fluctuations* (1926); *Secular Movements in Production and Prices* (1930); *Seasonal Variations in Industry and Trade* (1933); *National Income and Capital Formation* (1937); *Commodity Flow and Capital Formation* (1938); *National Income and Its Composition* (1941); *National Product in Wartime* (1945); *National Income: A Summary of Findings* (1946); *National Product since 1869* (1946); *Economic Change* (1953); *Shares of Upper Income Groups in Income and Savings* (1953); *Six Lectures on Economic Growth* (1959); *Capital in the American Economy* (1961); *Postwar Economic Growth* (1964); *Economic Growth and Structure* (1965); *Modern Economic Growth* (1966); *Economic Growth of Nations* (1971); *Population, Capital, and Growth* (1973).

Ian M. D. Little. Special Adviser, World Bank. Formerly Professor of Economics of Underdeveloped Countries, University of Oxford, and Vice-President of the OECD Development Centre. Author of *A Critique of Welfare Economics* (1950); *The Price of Fuel* (1953); *Concentration in British Industry* (with Richard Evelyn) (1960); *International Aid* (with J. M. Clifford) (1965); *Manual of Industrial Project Analysis in Developing Countries* (with

J. A. Mirrlees) (1969); *Industry and Trade in Some Developing Countries* (with Maurice Scott and Tibor Scitovsky) (1970); *Project Appraisal and Planning for Developing Countries* (with J. A. Mirrlees) (1974).

Erik Lundberg. President, Royal Swedish Academy of Science. Formerly President of the International Economic Association; Professor at the University of Stockholm and at the Stockholm School of Economics. Author of *Wages in Sweden* (1933); *Studies in the Theory of Economic Expansion* (1937); *The Business Cycle Sensitivity of the Swedish Economy* (1945); *Business Cycles and Economic Policy* (1953); *Productivity and Profitability* (1961); *Instability and Economic Growth* (1968); *Swedish Fiscal Policy in Theory and Practice* (1971); *Inflation and Unemployment* (with L. Calmfors) (1974).

Gustav Ranis. Professor of Economics, Yale University. Formerly Director of the Economic Growth Center, Yale University; Assistant Administrator for Program, Agency for International Development. Author of *Development of the Labor Surplus Economy* (with J. C. H. Fei) (1964); "Equity with Growth: The Taiwan Case" (with J. C. H. Fei and S. M. Y. Kuo) (for the World Bank). Editor of *Government and Economic Development* (1971); *The Gap between Rich and Poor Nations* (1972); *Sharing in Development: A Programme of Employment, Equity and Growth for the Philippines* (1974).

Maurice FitzGerald Scott. Fellow in Economics, Nuffield College, University of Oxford. Author of *A Study of U.K. Imports* (1963); *Industry and Trade in Some Developing Countries* (with I. M. D. Little and Tibor Scitovsky) (1970); *Project Appraisal in Practice* (with J. D. MacArthur and D. M. G. Newbery) (1976). Coeditor of *Induction, Growth and Trade: Essays in Honor of Sir Roy Harrod* (1970); *Using Shadow Prices* (1976).

Erik Thorbecke. H. Edward Babcock Professor of Economics and Food Economics, Cornell University. Author of *The Tendency towards Regionalization in International Trade* (1960); *Employment and Output: A Methodology Applied to Peru and Guatemala* (with A. Stoutjesdijk) (1971); *The Theory of Quantitative Economic Policy with Applications to Economic Growth, Stabilization, and Planning* (with K. A. Fox and J. K. Sengupta) (1973); *Planning Techniques for a Better Future* (with F. G. Pyatt) (1976). Editor of *The Theory and Design of Economic Development* (with I. Adelman) (1966); *The Role of Agriculture in Economic Development* (1969).

**ECONOMIC GROWTH AND
STRUCTURAL CHANGE IN TAIWAN**

1 Growth and Structural Shifts

SIMON KUZNETS

In this chapter I tried to organize the basic data on population, total product, and components, so as to present a consistent quantitative outline of the economic growth and structural shifts in Taiwan. Special emphasis is placed on the quarter of a century from the early 1950s to the middle 1970s.

The first two brief sections deal with the colonial period, 1895 to 1940, and the period of transition, 1945 to the early 1950s. The treatment is highly selective, noting a few major features required for better understanding of the remarkable growth accomplishment in the two and half decades that followed.

The next four sections deal, in some detail, with the quantitative framework of growth and structural change between 1951–53 and 1971–73. The account proceeds from the records of the aggregates, population, product, and product per capita, to changes in production structure, to movements in the structure of product by use, and to distributive aspects. A final section deals with changes since the peak of 1973—changes still unfolding, but deserving note because of the marked break in pace since that time.

My task—made possible by the abundance of basic data for Taiwan—encountered some difficulties. The very wealth and variety of the basic statistics, combined with the inappropriateness of some aspects of conventional national accounting to the realities of Taiwan's economy, resulted in several unresolved contradictions and questions. I hope that the somewhat arbitrary expedients that had to be employed do not limit unduly the validity and value of the discussion.

I have provided various analytical comments, suggested by the cast of the quantities and relating particularly to some implications of structural shifts associated with rapid growth. These comments present reflections rather than formal hypotheses and are offered only as possibly illuminating suggestions.

The Colonial Period, 1895–1940

In 1895, when the Japanese annexation began, Taiwan's population was probably well over 2.5 million.¹ This total included a small proportion of aborigines; at least 95 percent must have been accounted for by Chinese in-migrants and their descendants, of whom over eight-tenths were from Fukien and most of the remaining from Kwantung Province.² Migration from the Chinese mainland began in the early seventeenth century and accelerated after the Manchu dynasty extended its power to the island in 1683. Kowie Chang notes: 'It is recorded in history that at the time the Manchu ruler first seized Taiwan, the total of population in Taiwan amounted only to 200,000 [presumably the aborigines are not included]; but in 1843, the sum total of Chinese, with the aborigines not excepted, rose to 2,500,000.'³

These few figures indicate that by the start of the colonial period Taiwan had a sizable population of migrants (and their descendants) from the southern provinces of the Chinese mainland—migrants who, originally attracted by the richer supply of land, brought farming practices and skills with them and were settled in Taiwan for well over a century. Their agricultural and economic performance at that time was comparable with that of several countries in South Asia around 1960.⁴

Assumption of power by the Japanese, exercised over the next five decades, brought political and institutional changes that had a major economic impact. At the start of the annexation, the Japanese government was confronted by a rebellious population. It had to pacify the country and secure the cooperation of its Chinese inhabitants (if not of the aborigines, who were isolated in the mountains) in attaining its basic economic aims. This pacification task was not completed until the end of the second decade after occupation.⁵ If only for

In addition to the helpful comments by the authors of the other chapters in this volume, I profited also from comments by a number of scholars in Taiwan. Particularly valuable comments were received from Minister T. H. Lee (formerly with the Joint Commission on Rural Reconstruction [JCRR]): Shirley W. Y. Kuo of the Economic Planning Council; and M. H. Hsing, formerly of the Institute of Economics of Academia Sinica and currently at the Chinese University of Hong Kong. My access to, and understanding of, the basic data and past analysis were greatly facilitated by the unfailing assistance of T. S. Yu, director of the Institute of Economics, Academia Sinica, and his associate, Paul K. C. Liu of that Institute. Mrs. Jacob Weksler, who had helped me in many past years, edited the text patiently and painstakingly.

1. According to the Japanese census as of October 1 of the year Taiwanese population (excluding Japanese and Koreans) rose from 2.97 million in 1905 to 3.33 in 1915. See George W. Barclay, *Colonial Development and Population in Taiwan* (Princeton, 1954), Table 2, p. 13. Extrapolating this rate of growth back to 1895, which may exaggerate the actual growth and underestimate the derived total for 1895, yields a population of 2.64 million.

2. According to the most complete enumeration of aborigines, that for 1935, they accounted for slightly over 4 percent of all Taiwanese (Barclay, Table 3, p. 16).

3. Kowie Chang, ed., *Economic Development of Taiwan* (Taipei, 1968), p. 7.

4. See the brief discussion in Teng-hui Lee, *Intersectoral Capital Flows in the Economic Development of Taiwan 1895–1960* (Ithaca, N.Y., and London, 1971), pp. 32–39.

5. See brief discussion of this task in the paper by Samuel Ho, cited in the note to Table 1.1.