

Preface

The main purpose of this book is to create a compact description of the Japanese economy of the past fifty years, by the aid of the accumulated stock of knowledge of contemporary economics. Such economics includes quantitative studies of economic development by S. Kuznets, H. B. Chenery, E. F. Denison and W. J. Baumol, the macroeconometric analysis by L. R. Klein, and historical business cycles researches by G. H. Moore. The shape of the Japanese economy described here will present the essential logic of the working of the Japanese economy, together with a systematic survey of numerous economic facts about it.

The book is organized as follows. Chapter 1 is an introduction. It surveys general features of the Japanese economy, all of which provide us with materials for the analysis in later chapters. The following chapters pay particular attention to the contrast in the growth pattern of the Japanese economy: Rapid growth before the early 1970s, and a slower growth thereafter. Chapters 2 to 6 are devoted to the analysis of the rapid growth period. More specifically, Chapters 2 and 3 deal with the quantitative analysis of the sources of economic growth, by the well-known growth accounting method. The unusual contributing factors of rapid growth were private fixed investment on the demand side (Chapter 2) and technical progress on the supply side (Chapter 3).

Chapter 4 turns from aggregative analysis of the previous chapters to analysis at the industry level. It traces the source of growth to rapid industrialization. The estimates of the rate of technical progress for the 23 individual industries revealed that the high rate of technical progress measured by the aggregate production function could be attributed to two factors: (i) rapid technical progress of individual industries and (ii) the

strong shift of resources (capital, labor, energy and non-energy materials) from lower to higher productivity industries. The relative contributions of these two factors were about 2 to 1, respectively.

The most powerful factor of rapid technical progress of individual industries in Japan was the advantage of technology transfer for the latecomers, i.e., imitative technology. This is evident in the cross-country comparison of Chapter 5, which is based on the estimation of the production functions of individual industries from time series data, 1960-1993, of 4 Western countries and 3 East Asian countries. With the lapse of time, imitative technology in each industry successively reached maturity, where the exploration of own technology and the slowdown of technical progress started.

Chapter 6 is devoted to the analysis of the sources of rapid growth by simulation of a macroeconomic model, which is estimated from time series data, 1960-1993. This part has methodological novelty. In particular, unlike the growth accounting method, some of the growth factors are endogenized within the model, which allows for interrelation among growth factors. The contribution of technical progress was overwhelming by this method, too. The interesting difference was that the contribution of the growth of labor force was much larger than the estimate by the growth accounting method.

Chapter 7 treats the causes of the slower growth of Japan after the late 1970s up to the present. The dominant factor of the slower growth period was the slowdown of technical progress due to the ending of imitative technology. The sudden and sharp rise in oil prices in 1973 and 1979 had very little effect on GDP growth, as far as its secular trend for ten or more years was concerned. The effect of the tendency toward appreciation of the exchange rate on the slowdown of GDP growth was, however, not negligible.

Chapter 8 is devoted to business cycles in the Japanese economy in 1951-93. The chronology of business cycles, together with a short history of the Japanese economy, is presented. This chapter also contains simulations of the macroeconomic model, which generate cyclical fluctuations, comparable to the actual patterns in period and amplitude.

During the 1990s, the Japanese economy has been in a deep and long depression. The last chapter depicts features of the depression and discusses some problems for the future course of the Japanese economy.

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Mitsuo Saito
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