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## The Asian Economies in the Twentieth Century

Edited by Angus Maddison, D.S. Prasada Rao, and William F. Shepherd. Edward Elgar, Cheltenham, UK, 2002. xi + 250 pp., index, \$85.00.

This book summarizes the results of a project initiated in 1993 with financial support from the Australian Research Council. It aims at providing the statistical foundations for comparative research on economic performance in the Asia–Pacific region. It is based in Australia and it has been developed in close cooperation with the International Comparison of Output and Productivity (ICOP) project of the University of Groningen in the Netherlands.

The objective of the project is to produce a set of accounts of physical and human capital as well as gross output and intermediate inputs, comparable and consistent across countries. This way it will be possible to carry out international comparisons, especially of productivity, in a common monetary unit or numeraire currency. Meaningful comparisons cannot be carried out by simply transforming all currencies into US dollars using market exchange rates. For this purpose, purchasing power parity series, denoted PPPs must be constructed. The best-known attempt is the International Comparison Project (ICP) of the United Nations, which estimates PPPs derived from final expenditure components in National Accounts. The current project, on the other hand, uses PPPs by industrial sector of origin.

The volume consists of a brief introduction and eight chapters. The first three are devoted to methodological and measurement issues, while the other five deal with specific countries in which attempts to construct data sets consistent with the ICOP approach have been made. The authors are reputed scholars, e.g., Angus Maddison, Bart van Ark, and Dirk Pilat.

Chapter 2 provides a summary of the ICOP project and explains how it can complement the older ICP project. The chapter also describes in detail the type of information needed to construct sectoral series for agriculture, mining, manufacturing, services, and the economy as a whole. Chapter 3 is devoted to explaining the two main methods for aggregation for international comparison purposes, namely the Geary–Khamis and Elteto–Koves–Szulc methods. Examples are provided for a variety of commodities and countries. Chapter 4 examines manufacturing sector productivity levels in Australia and the USA. The authors conclude that Australian labor productivity was around 50% that of the USA for the period 1970 to1995.

Chapter 5 is a very interesting chapter on China. It is widely believed that Chinese authorities have exaggerated growth in the manufacturing sector and that their techniques for measuring GDP performance are obscure. Far more than just a matter of technical

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quibbles among statisticians, this important issue is at the core of the reassessment of the successes and failures of China's post-reform era. Economist Thomas Rawski has claimed recently that China's economy since 1998 might not have been growing at all. A collaboration between China's State Statistical Bureau (SSB) and Hitotsubashi University in Japan produces alternative measures, but the author of this chapter argues that their estimates, although lower than the official, are still too high. The paper constructs an independent index of Chinese industrial output based on officially published data on physical output and China's 1987 input—output tables. With the new series, the author finds lower growth rates than the SSB—Hitotsubashi project, a slower industrial growth in the post-reform period after 1978 than in the pre-reform period, and no significant difference with respect to the SSB—Hitotsubashi estimates for the Great Leap Forward period. The author also develops his own estimates of employment and uses these to calculate Chinese labor productivity for 1952 to 1994. He concludes that, for the pre-reform period, productivity grew at an annual rate of 3.8%, while during the post-reform period it grew at an annual rate of 5.3%.

Chapter 6 provides estimates of GDP for 1900 to 1997 for India divided into two subperiods, 1900 to 1946 for undivided India (i.e., present territories of India, Pakistan and Bangladesh), and 1947 to 1997 for current India. Although the author provides a plethora of disaggregated data, and this is certainly useful and welcome, the chapter is arid because most of the text is number-driven, i.e., a restatement of the figures in the tables. Unlike in the other country chapters, there is little economics or historical discussion.

Chapter 7 provides historical estimates of GDP in constant prices for 1900 to 1997 for Indonesia although the appendix provides data up to 1999. The chapter explores the sources of growth on the supply and demand sides. It is welcome that the author does not perform yet another growth accounting exercise; endnote 3 warns against some of the problems underlying growth accounting and the notion of total factor productivity growth. It also analyzes distributional disparities across regions. On the supply side, the sources of growth discussed are natural resources, demographic changes, human capital, physical capital, and technical progress. The author concludes that most of Indonesia's growth derives from the mobilization of resources. Technological progress has played a minor role and only after the 1970s, when Indonesia registered high growth rates of capital accumulation fostered by imports of capital in which technology was embodied. On the demand side, the author explores the role of foreign trade and domestic demand. The role of the former was to generate the foreign exchange needed to finance imports of foreign capital. Domestic demand since the 1960s was bolstered as a consequence of increasing revenues from oil and gas exports, which were used to develop the country's infrastructure.

Chapter 8 provides an informative historical overview of the development process of Japan, beginning with the Meiji restoration, the two World Wars and the period of reconstruction. It also provides time series since 1885. For the post WWII period, the author begins with a standard growth accounting exercise, although he warns that this type of exercise does not identify the ultimate causes of growth, which are cultural and demographic factors, history, institutions, international circumstances and economic policy. The author argues that, in order to understand the phenomenal growth that Japan experienced between 1950 and 1973, one must appreciate the roles of capital, education and training, technical progress and the organization of production. To make the list even

more exhaustive, the author discusses other possible factors such as the fact that Japan had been a unified country for a long time, had a homogeneous culture and a single language, had achieved a saving surplus long ago, possessed significant social capability, e.g., literacy, infrastructure and central government, was never colonized, and the government played a positive role. Finally, there is a brief reference to Japan's current structural problems and a comparison with other developed countries in terms of productivity. Overall, this is a very interesting chapter that can serve as an excellent introduction to a non-specialist as well as to somebody more familiar with the country.

Chapter 9 is an analysis of the remarkable performance of South Korea and Taiwan from 1960 to 1998. The authors use growth accounting so that the chapter is reminiscent of the endless discussions about the sources of growth in East Asia. From this point of view, the chapter does not add anything new to the controversy. Any differences with the many growth accounting exercises and estimates of total factor productivity growth published for these countries are due to the use of their own series; in particular, they construct a new series of gross capital stock and this is certainly a welcome and useful effort. Growth accounting has been seriously criticized recently, in particular in the context of the discussions of the sources of growth in East Asia, and the treatment of the topic in the chapters on Indonesia and Japan is much broader and cautious.

Summing up, this volume is a welcome effort. The construction of series in PPP terms from the production side is needed to carry out productivity comparisons. The project should result in the development of a database similar to the Penn World Tables.

Jesus Felipe
Economics and Research Department
Asian Development Bank
Manila, Philippines