

MODELS OF THE CHINESE ECONOMY

by Peter Lloyd and Xiao-Guang Zhang, Edward Elgar Publishing,
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Research on economic models has two major purposes. The first is the advancement of the science of quantifying the behaviour of economic actors such as households, the government, entrepreneurs and “foreigners” with respect to activities such as consumption, production, investment, and trade. Depending on the researcher’s objective and focus, the exercise can be undertaken at various levels of disaggregation. Households can be broken down by income and occupational groups; production can be considered at two or three digit classification and so on. Models can be sectoral or economy-wide. While sectoral models can consider many distinguishing features of specific actor types or activity, the overarching objective of economy-wide models is to capture the inter-linkages between all the major actors and activities. Without a clear idea of this interdependence it is difficult to comprehend what would be the impact of a behavioural shift by one actor, for example the government, on the behaviour of other actors and activities, such as investments by households. This brings us to the second purpose of research on models. Models, whether sectoral or economy-wide should, ideally, find justification as useful aids to the economic actors for taking informed decisions in their respective spheres of activities so that these enhance the welfare of the common people. Research or modelling will lose most of its value without passing this test.

The book *Models of the Chinese Economy* is a welcome addition to the literature on research on models. Given the size of the country, its diversified economic activities and the recent all-out rush into globalization, especially in the area of trade and investment, attempting to model the behaviour of the Chinese economy is itself a monumental task. The task is made more difficult in an economic regime under which the country is shedding many elements of the old state-controlled system in favour of a competitive market economy, but at the same time a substantial state enterprise sector continues very much in existence. With this background in view, the book documents a number of successful attempts to model the Chinese economy. However, the attempts need more intensive follow-up. The modality of this is discussed below.

The diversity of the model types discussed in part I (Dynamic CGE Modeling) of the book is adequate for providing examples of issues on modelling discussed in the beginning. A CGE model of the Chinese economy with FDI by Xiao-Guang Zhang is an economy-wide model incorporating the current policy objectives and

priorities of the country and capable of addressing issues relating to structural change in the economy. The other articles in this part pertain to models of specific sectors (production functions for the industrial sector of China by Yi Gong and Peter Lloyd and technical efficiency in Chinese industrial enterprises: the case of the iron and steel industry by Xiao-Guang Zhang and Siqi Zhang) and models for addressing specific issues; does the technology of foreign-invested enterprise spill over to other enterprises in China? An application of post-DEA bootstrap regression analysis by Joe Hirshburg and Peter Lloyd and capital allocation in China by Mei Wen and Xiao-Guang Zhang. These models are based on well specified economic theory and have the required level of disaggregation for meaningful representation of the Chinese economy.

The models are put to use for analysing certain policy issues and the results are reported in part II (Simulations) of the book. The chosen issues (impact of tariff reduction on growth and effect of external shocks and 'long'-term, growth of the economy) are of relevance for the contemporary macroeconomic regime of China. The quantitative results are well presented and are not counter-intuitive. A number of other models, each possessing the capacity for analysing a particular issue such as WTO accession, bilateral trade, exchange rate policy reaction, spatial distribution of manufacturing and generating Bayesian forecast of the economy are described in part III of the book. These models are well presented and structurally elegant. However, policy simulations have not been performed through these models.

The book will nevertheless be very useful to a diverse audience, including researchers and academics, especially those who are working on the Chinese economy. However, for making the 'knowledge' embodied in the book useful to both the government and private sector decision-makers of China, vigorous follow-up is needed. Models remain an academic exercise only if they are not used, revised and updated continuously. Policy simulations conducted by using the models ought to be the basis of an interactive dialogue between academia, government policy makers and the private sector. Such interaction serves two important purposes. First, the policy makers will be 'guided' by the results of the model simulations in taking informed decisions. At the same time, the modellers will also come to appreciate the policy makers' priorities and constraints and thus revise the model specifications and assumptions for making them more realistic. Will the Chinese Academy of Social Science and University of Melbourne who sponsored the research contained in the book help to create such a healthy tradition?

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* The views expressed in this review are those of the reviewer and do not necessarily reflect those of the United Nations.