

A Non-econometric Review of Indian Macroeconomic Models

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This paper provides a non-econometric review of the existing macroeconomic modelling literature for the Indian economy. This review is called non-econometric in the narrow sense of the term "econometrics" - which is commonly understood to refer to the statistical aspects of economic models. While some of the earlier reviews focused on the statistical aspects of macro models, this review is aimed at the theoretical analytic framework underlying various macroeconomic models of India. This review is undertaken mainly to identify the gaps to build a macroeconomic model that takes due note of current economic changes. In so doing two broad aspects are explored. First, an analysis of the theoretical framework of the current state of the art of macroeconomic modelling in India. Second, the nature of the empirical work on macroeconomic modelling that has been done so far since its inception. From this it is revealed that most of the studies are essentially explanatory in nature comprising static disequilibrium models and to some extent dynamic only through lagged adjustment, which are not truly dynamic. So, there is a need for dynamic control policy models that can explain the time paths of the endogenous variables which show trends and fluctuations over time. Moreover, most of the existing models are mere structural econometric models, which are only good for explanation and do not forecast well, whereas, a time-series model of Vector-Autoregressive type provides a powerful method of forecasting and is also of increasing use for explanation. Hence, this paper offers some critical remarks on macroeconomic modelling and the relevance of an optimal control policy model for macro-adjustment based on a Vector-Autoregression time-series model.

1. Introduction

Macroeconomic model building in India is no longer a matter of simple experimentation. Over the years, a number of quantitative investigations have appeared from time to time describing the short-term fluctuations in the Indian economy. The history of macro economic modelling of the Indian economy is about four decades old. Macro-modelling was initially developed in the advanced countries in Tinbergen-Klein tradition¹, which was made possible with the steady