Abstract

A Dynamic CGE Model of the Macro-meso Economy with an Application to Mauritius

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This paper presents a dynamic computable general equilibrium (CGE) model of an economy, with special attention to the value chain structure of the ocean dependent sectors (the so called "ocean economy") and the linkages with employment creation, income distribution and natural resources. The formulation of the model is dynamically-recursive with respect to the private economy, in the sense that in each period the private economic agents are assumed to optimize under the current information on prices and incomes, with essentially myopic expectations. The government, however, is assumed to have rational expectations and to choose the path of government expenditure that maximizes over a given time horizon the integral of a social welfare function, subject to the choice (known to the government) of the private agents. The model is thus a sequence of general equilibria which are the solution of a Stalkelberg game, and converges to a steady state, which represents the social optimum from the point of view of the social welfare function chosen. An application of the model to the economy of Mauritius is presented to illustrate the characteristics of the time path simulated and the other results.

Keywords: dynamic CGE, ocean economy, myopic expectations, rational expectations, steady state, Mauritius