



**NORTH-HOLLAND**

# **Policy Analysis in a General Equilibrium Framework**

---

Shujie Yao, *University of Portsmouth, UK*

Aying Liu, *University of Middlesex, UK*

In a developing economy where agriculture has an important role in economic growth and in maintaining a certain level of living standards for the poor, any macro-economic and sectoral policies have critical implications on income distribution and government finances. This article develops a computable general equilibrium (CGE) model to describe a multi-regional, multimarket, and multiagent agrarian economy. The model is initially aimed for the Philippines, but can be extended to any other country in southeast Asia. A number of policies regarding supply, demand, and external trade are simulated to compare their costs and benefits, paying particular attention to poverty alleviation, income distribution, price stability, economic growth, and government finances. © 2000 Society for Policy Modeling. Published by Elsevier Science Inc.

## **1. INTRODUCTION**

In a developing country where agriculture has an important role in economic growth and the well-being of the poor, any policy reform has important implications on income distribution, price stability, and government finances. This article constructs a computable general equilibrium (CGE) model that can incorporate alternative government policies directed towards achieving a certain set of economic and social objectives, paying particular attention to agricultural production, income distribution, government budget, and external balance of payments.

---

*Address correspondence to Shujie Yao, Department of Economics, University of Portsmouth, Portsmouth PO4 8JF, UK.*

The authors are grateful to the comments made by two anonymous referees and the editor, but they remain solely responsible for any remaining omissions or errors.

Shujie Yao is professor and director of development economics research; Aying Liu is lecturer.

Received February 1997; final draft accepted September 1997.

Most CGE studies have focused on the two ends of the commodity chain, i.e., the producers (farm-gate or factory-gate) and the final consumers, ignoring the marketing segment between production and final consumption (see Robinson, 1986, for a survey; Clarete and Roumasset, 1986 and 1987, for the Philippines; Narayana et al., 1991, for India; and Zhuang, 1994, for China; Schul, 1974, Adelman and Robinson, 1986, and Kilkenny, 1993, for the United States). Moreover, many studies have treated the entire economy as one single homogeneous market without paying attention to geographical differences. The importance of geographical diversity has been recognized by many authors (Kilkenny, 1993, Roberts and Russell 1994) but few authors have attempted to incorporate the intermediate market segment between producers and consumers into their studies. To overcome the limitations of previous studies, this paper constructs a general equilibrium model with three distinctive characteristics: (1) it concentrates specifically on the food system by treating nonfood agriculture, nonagricultural sector, and the rest of the world as other aggregate sectors of the economy; (2) it separates the country into two regions with different farming systems and incomes; and (3) it divides the economy into three different market levels: farm-gate, wholesales, and retail. The present model is based on the Philippines economy in 1987, but it can be extended to any other countries in southeast Asia such as Thailand, Malaysia, or Indonesia.

In most countries, governments enter the market with specific objectives, policy instruments, and acting agents. In the food sector, the main acting agent for the government is the National Food Authority (NFA), which can enter any of the three marketing levels. Many price and marketing policies can be implemented through NFA's buying and selling activities. All the policy objectives require special instruments that can be incorporated into the CGE framework. In this paper, although our focus is on the structure of the model, four sets of policy changes are simulated to examine their effects on the nutritional status of the poor, price stability, income distribution, economic growth, and government finances. The costs and benefits of each policy scenario are analyzed to show how policy reforms should best be implemented in an empirical sense.

The next section briefly reviews the economic situation in the Philippines and the background for the CGE model. Section 3 describes the market and model structure. Data and policy simulations are discussed in Section 4. The last section draws conclusions.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات