## The Global Food Economy: Issues and Challenges

*The World Food Economy*. Second Edition. By Douglas Southgate, Douglas H. Graham, and Luther Tweeten, John Wiley and Sons, 2007, 452 pp., \$94.95/paper.

Although environmentalists forecasted imminent famine throughout the world in the early 1970s, recent headlines have been more focused on the affordability of food. Unfortunately, reports from the United Nations indicate that the price of food is still high: the food price index of the Food and Agriculture Organization (FAO) reached 238 in February 2011, the highest level since the agency started releasing the index to the public in 2007. The rise in food prices is due to a combination of bad weather in many parts of the world, reducing supply, and robust economic growth in emerging economies, driving up demand. Higher energy prices resulting from political instability in the Middle East has increased transportation costs, also adding to the price of food. In response, in July 2007 the FAO warned of a developing food price crisis and later launched its Initiative on Soaring Food Prices to help smaller farms grow more food and improve earnings.

In this comprehensive book, Southgate, Graham, and Tweeten have provided a broad explanation of the interrelated elements in the world food economy. The volume is useful for its intended audience of students, professionals, and anyone else desiring to understand the forces influencing the world food

economy and how it is tied to hunger and poverty. Rather than concentrating solely on food consumption, the authors provide a thorough description of the relationship that exists among production agriculture (the source of farm commodities), agribusinesses (which provide agricultural inputs and marketing and processing services), and government (which establishes the framework for markets, funds agricultural development, and facilitates investments in human capital and new technology). Food economies are considered from national, regional, and global perspectives, and differences between undernourished, expanding, and affluent nations are highlighted. This second edition of the book addresses recent developments in biofuels, climate change, and the effects of expanded global trading in commodities. There are also new sections on agribusinesses and the relationship between energy and agriculture.

The authors have provided an in-depth description of the supply and demand sides of the world food economy. Since the early 1960s, supply side growth has outstripped increases in demand; consequently, food has become cheaper. Food production can be increased through either extensification (by using more land for crop and livestock production) or intensification (resulting from the increased application of nonland inputs, technological change, or a combination of both). The authors note that food output per capita has gone up by 98 percent in Asia and by 73 percent in South America. In Europe and North America, the increases have been 9 percent and 31 percent, respectively. Africa is the only region with

a decline in per-capita output (by 2 percent) since the early 1960s. Gains in supply have been derived from developments in machinery, plus improved seeds and chemicals for pesticides and fertilizer, among other improvements. The bottom line is that much more output is obtained from a given amount of inputs. The authors conclude that supply exceeds demand growth for food as a result of productivity gains that have been reflected in higher yields, and, they maintain, there is no reason for that to change in the near future.

On the demand side, both population growth and higher incomes affect food consumption. Population is not currently projected to grow as quickly during the next few decades; in contrast, improving living standards are likely to increase food demand even as population growth slows. The current situation has not always existed. The authors cite Thomas Malthus (1766–1834), who contended that the only way to avoid exponential growth in the population or to have deaths exceed births was for human sustenance to be "at a bare minimum, nothing more or less." He posited further that agricultural output rises only linearly over time, relative to demand. These assumptions were reasonable enough in his era, but no longer-at least in the present, according to the authors. Malthus would have had no way to foresee the advances in birth control and technology, changes in living standards, female educational attainment (leading to lower birthrates), or improvements in the average diet that have taken place in the past two centuries.

The authors consider markets as a feedback mechanism for dealing with resource scarcity and likewise look at the human desire for selfimprovement and the need to strive for food security. World food security is defined by the FAO as that state of affairs which exists "when all people consistently have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life." This definition emphasizes access to adequate nutrition: because global production in recent decades has consistently been enough to feed the entire human population, access is the key to enhanced food security. Nutrition and health education, vitamin supplements, oral rehydration, treatment for parasites, and immunization are important parts of access. In countries with limited availability of clean water, intestinal parasites that cause malnutrition also can be an issue, even if the quantity and quality of food are sufficient.

The rest of the book focuses on regional differences relating to the world food economy, highlighting

differences in climate, natural resources, history and culture, and recent economic development. While one chapter compares and contrasts interregional differences and similarities, other, more specific, chapters labeled "The Affluent Nations" are followed by chapters on Asia, Latin America and the Caribbean, the Middle East and North Africa. Eastern Europe and the Former Soviet Union, and Sub-Saharan Africa. Each chapter presents data on principal features of the food economy at the national level, including the standard of living, patterns of economic growth, population dynamics and human fertility, food security, agricultural development, and an analysis of food consumption (dietary changes, consumption trends, and obesity problems in the affluent nations).

The authors conclude that, if policies are put in place to best utilize natural resources for current and emerging technologies, food production should continue to increase in the 21st century, as has happened in recent decades. The benefits of this expansion can be widely distributed so that the number of food-insecure people in the world will continue to decline. The authors acknowledge that future progress isn't guaranteed and that fully alleviating hunger remains a challenge.

This review reflects many, but not all, of the aspects of the world food economy covered by the authors. The topic is so broad that it is just not possible to address everything related to globalization and agriculture in one book: environmental concerns, agriculture and economic development, and aligning the consumption and production of food over time. Nonetheless, the book is a worthwhile reference text on the myriad issues related to the global food economy.

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