

ECONOMIC GROWTH AND GLOBAL FOOD SECURITY

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The macroeconomic assumptions underlying USDA's long-term projections show strong yet declining global growth in the near term, led by a gradual decline in developed country growth coupled with sustained growth in developing countries. Real global gross domestic product (GDP) is projected to increase at an average annual rate of 3 percent over 2018-20. This remains the strongest global growth since the post-financial crisis rebound in 2010-11. Long-term global trend growth is expected to be slower than the rates that prevailed during much of the early 2000's as the continued maturing of China and other emerging markets implies slower developing country growth rates and aging populations lower potential growth in several large developed and developing economies. Real global GDP is projected to grow at an average rate of 2.8 percent per year over the projection period, below the long-term, pre-financial crisis (1980-2007) average of 3.3 percent, although similar to growth rates prevailing in the 1980s and 1990s [3, p.7].

Economic growth in developing countries is projected to average 4.4 percent annually during the projection period. While this represents a growth slowdown compared to recent history, it remains more than twice the projected growth rate of developed countries. As a result, developing countries' share of global real GDP is projected to rise to 45 percent in 2028 from 40 percent in 2019. China, India and outeast Asian countries are expected to account for the bulk of this increase. The strongest developing country growth is projected among Asian countries at 5.3 percent, followed by African countries at 3.7 percent and Latin American countries at 2.6 percent. The region encompassing the former Soviet Union is forecast to grow most slowly at an average of 2.2 percent per year [3, p.15].

Agriculture plays a unique role in sustainability, providing food at a reasonable cost to current and future generations. To assess whether agriculture is sustainable, all the costs of agricultural production to current and future generations must be considered. These costs include the impact of agricultural production on the environment and stocks of natural capital (e.g., farmland, aquifers, lakes, rivers, estuaries, and wetlands).

The most widely used definition of food security originates from the 1996 Food Summit at the Food and Agriculture Organization of the United Nations (FAO): Food security exists when all people, at all times, have

physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life [2, p.7]. The definition encompasses issues of food availability, economic and social access, individuals' ability to translate the food they eat into good health outcomes (commonly referred to as the utilization dimension), and their ability to maintain stability in each of these dimensions over time. This is also the definition used by the U.S. Global Food Security Act of 2016 (GFSA). Both transitory and chronic food insecurity can have lasting effects on health and economic outcomes. Food insecurity can adversely affect physical development and mental capacity and can also have lasting physical and economic effects over the course of a lifetime. For society as a whole, food insecurity can contribute to political and social unrest, and economic losses are estimated at 2-3 percent of global gross domestic product (GDP) or \$1.4-2.1 trillion annually.

The multiple dimensions of food security—availability, access, utilization, and stability—increase the complexity of accurately measuring food security status. Indicators for each of the four dimensions of food security typically challenge available data and require a number of assumptions [4, p.611]. As a result, policymakers and researchers need to understand a number of metrics and their limitations to fully characterize the food-insecure population. “Macro-level” indicators, such as those released in the annual USDA Global Food Assessment, rely on national-level data and forecasts to provide current indicators that pertain primarily to availability and access. “Micro-level” measures draw on available household-level survey data to provide more information on temporal and cross-section differences in availability, access, utilization, and stability, but are generally slower and more costly to implement. Recently, a number of researchers and policymakers have placed more emphasis on experiential measures of food security—a micro-level indicator that relies on a battery of survey questions that is quicker and cheaper to implement than more traditional household expenditure surveys. Still, there are substantial differences between the experiential indicators and other measures that are currently not fully understood or reconciled. For example, an ERS comparison of intake-based and experiential measures for Ethiopia, India, and Bangladesh found that between 65 and 83 percent of individuals who reported food-intake levels qualifying them as undernourished in calories did not report experiencing food insecurity [2, p.13].

This understanding derives in large part from the work of 1998 Nobel Laureate Amartya Sen's work on entitlement and hunger [1]. An individual's

access to food may come from trade or from other means in addition to food production. As a result, shortfalls in production are neither necessary nor sufficient for hunger, which can result also from a variety of other factors, including changes in income, employment, food prices, or the provision of safety nets. This understanding represents a significant advance over earlier definitions that focused on global food availability, yet careful consideration of food security requires moving beyond even access to food, and recognizing the choices that households and regions face when incomes fall short. Low incomes force tradeoffs between meeting current consumption needs and protecting the resources needed to meet consumption and other needs over the longer term.

Resources can be classified in a variety of ways. Natural resources (e.g. land and water), produced resources (e.g. roads and factories), and human resources (e.g. skilled and unskilled labor) are generally recognized, if not always easy to measure. Social resources are comprised of the institutions and cultural patterns on which functioning societies are based. Resources are critical to food security because they determine the ways in which individuals, households, and countries gain access to food through production and exchange. Resources are also related to food security in a second significant way. Once individuals or groups have engaged in production and exchange, they can allocate the resulting income, along with their remaining stock of resources, to consumption and investment. Consumption and investment in turn affect the quality and quantity of the human and other resources that are available in subsequent periods [1]. Consumption and investment can be viewed as alternative forms of expenditure on resources, where consumption in the form of food intake represents the most basic form of investment in human resources.

Reference

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