Trade liberalization has the potential to enhance developing countries’ food security position and reduce their food gap. For more substantial gains, the countries will have to encourage the expansion of their domestic food production sectors. While domestic production is still their most important source of food, developing countries are gradually increasing their dependence on food imports (see chart). For the most vulnerable low-income countries, such as Rwanda and Haiti, however, food aid represents a large share of those imports. Changes in global trade policies have direct implications for the food security of developing countries. Food-insecure countries are concerned with projected increases in world food prices (resulting from global trade liberalization), which could jeopardize their ability to import food as well as force them to draw down their financial reserves. Developing countries with adequate resources and sound economies may be able to increase their own exports in response to rising prices, but others may be harmed by price increases. Food security in developing countries would be helped if they gained increased access to developed country markets through trade liberalization, although the benefits are likely to be small for countries that already receive preferential trade treatment.

Background. Low-income developing countries have a common interest in the three agricultural trade issues that affect import prices and export earnings: market access, domestic support, and export subsidies. Many countries have also expressed concerns about projected food price volatility, declining donor food aid budgets, eroding trade preference arrangements, and tariff escalation (higher tariffs for products incorporating higher levels of value-added processing). All of these factors could hurt the ability of low-income countries to finance food imports.

To improve food security by increasing food availability at the national level, countries have two options: accelerate domestic agricultural production or increase imports. Where agricultural growth is limited, commercial imports play a major role in improving a country’s food security.

Trade liberalization, by leading to removal of farmer subsidies in developed countries, can be expected to raise world food prices, because removal of subsidies induces farmers to reduce their output. Similarly, removing export subsidies raises the prices to food-importing countries. In both cases, rising food prices would hurt consumers in developing countries, especially in the short run (assuming no protection in developing countries). Rising prices, however, also signal producers to expand output, which may boost food production in countries with adequate resources.

As tariffs decline, global trade should accelerate, improving economic efficiency and increasing economic growth. The gain in economic growth, however, depends on the magnitude of trade expansion.

■ On the import side, domestic prices in countries with high tariffs could decline if the reduction in tariffs outweighs increases in world prices. In that case, costs to consumers would decline, as would returns to producers. If tariffs had already been relatively low, however, world prices would be expected to pass through the domestic economy, leading to higher prices, which benefit producers.

■ On the export side, improved market access could lead to an increase in exports for developing countries. This result is tempered, however, by the fact that many developing countries already receive preferential market access from developed countries (see box).
The ultimate gain from trade liberalization depends on countries’ ability to take advantage of growth in international trade. Global trade liberalization is projected to increase the demand for developing countries’ exports. Countries with more diversified agricultural market structures and trading partners are likely to adjust quickly and take advantage of market signals, while countries with weak market infrastructures and those that rely on few export commodities will show limited gains.

ERS recently used its food security assessment (FSA) model to determine the direct impact of agricultural liberalization on the food security of 67 low-income countries. A baseline scenario was developed for these countries for later comparisons. A nutritional food gap was calculated by comparing projected per capita food supplies with minimum nutritional requirements. According to this baseline forecast, the nutritional gap was projected to be 21.9 million tons in 2010.

For developing countries, global agricultural trade liberalization affects food security through world price levels and export earnings. A recent ERS study projected that longrun real world food prices would rise by about 12 percent and that developing countries’ exports would increase by about 30 percent. These outcomes were incorporated into the FSA model. The first scenario focused only on the price impacts and the second scenario considered both price and foreign exchange effects. The net result in the first scenario was a 2.3-percent decline in the nutritional gap—to 21.4 million tons. In the second scenario, the nutritional gap declined by 6.4 percent—to 20.5 million tons.

Three factors account for the relatively small but positive impact on food security. First, low-income countries generally show a low production response to increases in producer prices. Second, agriculture’s share of total exports in developing countries is declining. Third, food imports are a small component of overall food availability in many low-income countries. Therefore, even a relatively high growth rate in agricultural exports and increased commercial imports have only a small impact on overall food availability.

**Alternatives.** Several trade-related options can be used to improve food security. On the export side, increasing market access for products exported by developing countries would raise incomes and help reduce food insecurity. For example, developed countries could reduce tariffs on developing countries’ key exports. Countries also may find it useful to explore programs that could stabilize export revenues (for example, participate in the World Bank’s pilot commodity insurance program). On the import side, countries might consider options to make import costs more predictable. Some recent proposals have included international import insurance or a financial rebate program for the low-income countries. Another option could be to strengthen the Uruguay Round trade provisions on food aid to assure minimum global volumes and target them toward the low-income countries. Finally, countries also should recognize the primacy of domestic production to food security in many regions; thus, it might be appropriate to devote resources for research and development, such as at the international agricultural research centers around the world.

**Information Sources.** More information can be found in *The Road Ahead: Agricultural Policy Reform in the WTO—Summary Report* (http://www.ers.usda.gov/publications/aer797/).