

Summary

Rising incomes, falling transportation costs, improved technology, and evolving international agreements have led to substantial growth in the volume and variety of fruits and vegetables traded globally. Three regions—the European Union (EU), the North American Free Trade Agreement (NAFTA) area, and Asia (East, Southeast, and South)—are the major destinations, as well as the major sources of supply, for this trade. All three regions depend on Southern Hemisphere countries for imports of juices and off-season fresh fruits, and on equatorial regions for bananas, the leading fresh fruit import.

The EU is both the leading destination and source of supply in the global fruit and vegetable trade, accounting for nearly half of the world's imports and more than 40 percent of the exports. Most EU trade, however, is intraregional, except for fresh fruit and juice imports, for which extra-EU trade is slightly larger than intra-EU trade. In addition, a substantial share of these extra-EU imports comes from geographically proximate partners or ex-colonies under preferential trade agreements.

Intraregional trade is also important for NAFTA, particularly for fresh vegetables, which are mostly intra-NAFTA commodities. For other commodity groups, however, NAFTA members import heavily from the Southern Hemisphere and send sizeable exports to Asia. Trade with the Southern Hemisphere and equatorial regions is mainly in imports of juices, off-season fresh fruits, and bananas. During 1999-2001, nearly 60 percent of fresh fruit and 45 percent of juice imported by NAFTA originated from Southern Hemisphere countries and equatorial regions. During the same period, Asian markets, mainly in East Asia, accounted for 20 to 30 percent of NAFTA exports.

Asian trade is dominated by China's exports and Japan's imports. Except for juices, most of China's exports were to neighboring Asian markets, with Japan the leading market for China's horticultural exports. Since the 1990s, China has sharply increased its presence in Japan's import market for fresh and frozen vegetables. The fast growth of China's frozen vegetable market does not yet pose a serious challenge to the position of U.S. frozen vegetables in Japan because each country ships different products. Chinese exports of fresh vegetables, however, pose more of a challenge to the United States; some of China's exports compete with leading U.S. vegetable exports.

While intraregional trade still dominates global trade patterns in fruits and vegetables, extraregional trade has become more important in the past decade. Most of it involves global north-south trading, due mainly to the countercyclical seasons of the two hemispheres. Tariff structures in the EU and NAFTA tend to reinforce this pattern. Asian trade has also become much more important since the mid-1980s as incomes and populations have grown and policies changed. A big exception to the seasonality of produce traffic is bananas, the most traded of all fruits and vegetables. Continuous-growth equatorial regions account for a substantial share of global banana exports, while year-round demand in developed countries has existed for decades.

These major trading patterns exist for a variety of reasons, which can be loosely grouped as supply, demand, institutional, and other factors. *Supply-side factors* include such fundamental aspects as climate, location, technology, costs, factor endowments, and infrastructure, among others. The ability to maintain quality through technology has enabled the emergence of a global market, for example, by allowing tropical fruits to be introduced into markets previously unreachable.

Demand-side factors, which include rising incomes and the creation of a middle class that demands quality produce in all seasons and is willing to pay, have had major consequences for trade. The cheaper prices and better quality resulting from lower tariffs and improved technology have also increased demand. High-income countries like the United States, EU members, Japan, and Canada, account for the overwhelming majority of the fruit and vegetable trade, as well as for its growth. The EU and the United States, in particular, are the largest traders in the global market of fruits and vegetables.

The Common Agricultural Policy in the EU and the trade liberalization measures in NAFTA are two examples of *institutional factors* that play a role in the patterns of global trade in fruits and vegetables. While the EU market is circumscribed by its numerous preferential agreements, the U.S. market is comparatively open. In addition, U.S. exports seem to be especially influenced by *other factors* such as exchange rates—an economic factor—whereas the U.S. import market appears to be largely influenced by U.S. income growth in addition to price and quality factors.

Globalization of the fruit and vegetable trade has made fresh produce accessible to consumers around the world, overcoming seasonality and smoothing price fluctuations. High income-growth rates in developing countries portend higher rates of fruit and vegetable consumption and trade in the future. In the meantime, developed countries will dominate global consumption and trade of fruits and vegetables, not only because of their high income levels but also because of consumers' increasing concerns about healthy eating, which tend to increase fruit and vegetable intake in their diets. The United States is well placed to take advantage of the potential for greater horticultural trade, both as an importer and as an exporter, because of its income level, access to advanced technology and transportation, and trade agreements that allow for the freer flow of products around the globe.