

Will China's Agricultural Trade Reflect Its Comparative Advantage?

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China is potentially an important global trader of agricultural commodities, a role that will become more pronounced following the country's World Trade Organization (WTO) accession. At various times during the 1990s, China imported as much as 17 percent of the world's traded wheat, 25 percent of its fertilizer, and 28 percent of its soybean oil, while exporting as much as 10 percent of the world's traded corn. China's role in global agricultural trade has been modest, and the country has run small annual agricultural trade surpluses in recent years (fig. H-1).¹

Since 1980, agricultural trade has grown slowly in comparison with China's surging merchandise trade (fig. H-2). The nominal value of China's total merchandise exports and imports grew at annual rates of about 13 percent from 1980 to 1999 (World Bank). Agricultural exports and imports grew considerably slower, at average annual rates of 6.6 percent (exports) and 5.0 percent (imports). Growth in the *real* value of agricultural trade (exports plus imports) averaged only 2 percent annually from 1980 to 1999—less than half the growth rate of real agricultural Gross Domestic Product. The agricultural share of China's trade fell from about 33 percent in 1980 to about 7 percent in 1999—reflecting export-led industrial growth, improved resource allocation among sectors, and the shifting of comparative advantage from agriculture to light manufacturing.

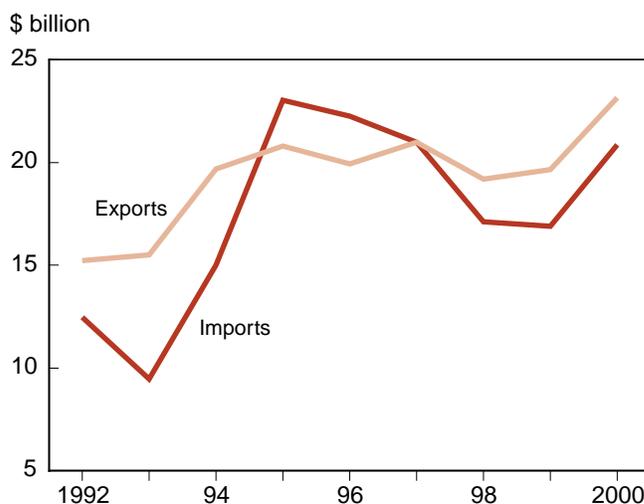
While growth in China's agricultural trade has been slow in comparison with the rapid growth of its industrial exports, China's share of world agricultural trade actually increased somewhat to just under 3 percent in 2000 (World Trade Organization). China still maintains many barriers to agricultural trade, but it has liberalized trade considerably in a sector in which protection is high in many other countries.

¹ China's status as a net exporter or importer of agricultural products depends on which commodities are classified as "agricultural." China is a net importer of grains, oilseeds, and industrial inputs, such as cotton, textiles, hides, and skins. It exports manufactured foods, beverages, fish, tea, fruits, and vegetables.

Shift Toward Comparative Advantage

Broadly speaking, the rationale for freer international trade lies in the efficiency gains that a country enjoys through using resources most efficiently by specializing in production in certain goods and trading these goods in world markets. Specialization according to comparative advantage means that a country produces commodities that are best suited to the country's resource endowment, and this raises national income. A shift toward freer trade may provide added side-benefits from scale economies and increased domestic competition. With an abundant rural labor force relative to its land base, China has a comparative advantage in labor-intensive agricultural products, such as fruits and vegetables, and manufactured agricultural products. However, agricultural policy in China and trade barriers in other parts of the world have tilted China's agricultural production away from its comparative advantage.

Figure H-1
China agricultural exports and imports, 1992-2000



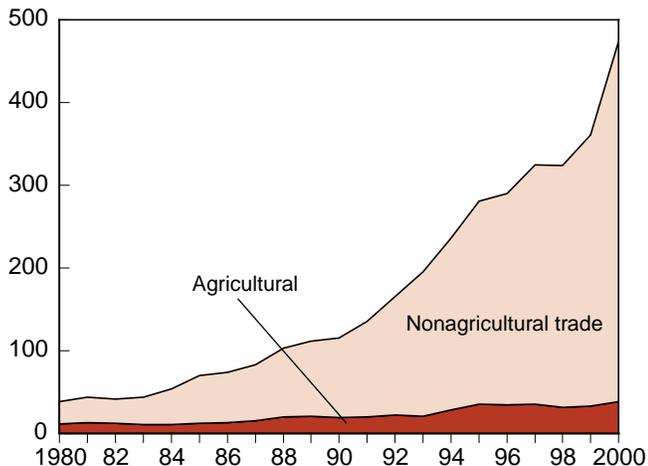
Note: Data not adjusted for inflation.

Source: ERS analysis of China customs statistics reported in Hsin-Hui Hsu and Fred Gale, *China: Agriculture in Transition*, USDA/ERS Agriculture and Trade Report WRS-01-2, November 2001, appendix tables 5 and 6.

Figure H-2

China agricultural and nonagricultural trade, 1980-2000

\$ billion



Note: "Agricultural" includes primary goods less mineral fuels. "Nonagricultural" includes mineral fuels, lubricants, manufactured products, and other goods. Data not adjusted for inflation.

Source: China customs statistics data as reported in *China Statistical Yearbooks*.

China's declining comparative advantage in grains and other land-intensive crops should lead to increased net grain imports in the future. A gradual shift in the composition of imports from food to feed grains seems inevitable as well. In addition, China will most likely expand its exports of more labor-intensive crops, such as fruits and vegetables, and manufactured agricultural products such as textiles.

China's mix of agricultural trade has expanded modestly along comparative advantage lines since 1980. However, imports of land-intensive commodities have not risen significantly, and China is still only a small net importer of grains and oilseeds. Exports of fruits and vegetables have shown little trending.

A cereal grain export blockade, in effect during portions of 1994 to 1996, had a strong impact on China's grain trade. Net grain imports rose during the embargo and fell in 1997, the first full year following the lifting of the embargo. The importance of grain exports to China's agricultural trade has since fallen. Thus, the embargo appears to have accelerated the declining trend in cereal exports, as China's exports shift toward commodities in which it has a comparative advantage.

Grain Self-Sufficiency Remains a Priority

China's policy emphasis on grain self-sufficiency may have impeded the shift toward comparative advantage in trade. Throughout the 1980s, the external grain trade was used to balance supply and demand for individual food and feed grains. In the 1990s, as China's lack of comparative advantage in grain production became more apparent, the target for domestic grain self-sufficiency was lowered to 95 percent of total grain consumption needs. Grain self-sufficiency remains a high priority, albeit with a less stringent criterion.

China is trying to improve the efficiency and responsiveness of its trading system in meeting national requirements, an objective that sometimes conflicts with self-sufficiency. During the 1990s, China initiated a number of policy and institutional reforms to improve market efficiency, including consolidating exchange rates, eliminating most government-determined prices, encouraging competition by decentralizing and deregulating the trade of many commodities, transforming trading companies into handling agents, reducing the number of commodities requiring import and export licenses, and reducing tariffs.

For most commodities, foreign trade has been decentralized and competition has increased. The number of firms eligible to engage in foreign trade increased from about 1,200 in 1986 to about 200,000 in 1996. However, agricultural trade in "strategic commodities," such as food grains, textile fibers, and chemical fertilizers, continues to be restricted to specialized and monopoly national trading corporations. The government's Cereal, Oil & Foodstuffs Importing and Exporting Corporation (COFCO) controls most of China's international grain trade for national and provincial grain-trading companies. Prior to China's WTO accession, COFCO handled almost all imports and exports of China's grains, oilseeds, and vegetable oils, making it an exceptionally large trading company. China's WTO accession terms included commitments to set aside specified shares of wheat, corn, rice, vegetable oils, sugar, and cotton that could be imported by any end user. Some national trading corporations have been transformed into for-profit enterprises, including COFCO for grain, edible oil, and sugar; China National Chemicals Import and Export Corporation for chemical fertilizer; and the Cotton Import and Export Company of China.

The monopoly structure of China's state trading may account for the erratic nature of China's agricultural trade. However, one of the most important effects of China's WTO accession agreement may be the weakening of state trading monopolies. COFCO's wide year-to-year swings in trade volume have contributed to price fluctuations within China. While price stabilization is an important goal of China's trade policy, China's domestic prices of rice, wheat, and corn have all been more volatile than international prices. COFCO may have even exacerbated domestic price volatility by importing during periods of relative grain abundance and exporting during periods of relative grain scarcity. The lack of transparency in China's trade transactions also causes uncertainty by withholding information from COFCO's customers and suppliers. China's accession to WTO will diminish COFCO's monopoly power by setting aside shares of grain imports for nonstate traders. This commitment will increase the amount of competition and transparency in China's grain trade and forge a stronger link between domestic and international prices.

Grain trading in China still remains subject to import and export licenses and quotas. However, for other commodities, such as soybeans, trade has been more open and competitive for several years. Restrictions against importing soybeans were almost completely removed during 2000 and 2001, and soybeans entered China at near world prices, until problems with import inspections and uncertainty over new biotechnology regulations slowed imports in mid-2001.

Reforms Reduce Distortions

Until the mid-1990s, China consistently taxed farmers by maintaining farm-gate prices below border price equivalents, but taxation of farmers has diminished in recent years. By 1997, most farmer procurement and farmer market prices approached international price equivalents—and for brief periods in 1996/97 may have exceeded international prices. Nominal protection rates estimated at official exchange rates for the major grains, oilseeds, and cotton clearly show declining negative protection (i.e., taxation) over the 1980s and 1990s and now hover within a 10 percent band around zero.

Exchange rate policies, however, still impose an implicit tax on many commodities because China's currency is overvalued. According to the International Monetary Fund (IMF), China's renminbi is fixed above the free market rate. Even though there was a

What We Need to Know

Will China increase imports of grain and other bulk commodities in accordance with its comparative advantage?

Will increased competition in trade improve domestic efficiency and transparency and reduce farm-processor price spreads?

How will increased participation of nonstate trading entities affect domestic price stability and domestic and international price linkages?

Will state traders remain competitive without government-sanctioned monopoly status?

Will nontariff barriers remain important after WTO accession?

significant depreciation of the renminbi between 1990 and 1994 (when the currency lost more than 40 percent of its value), the IMF estimates that the renminbi has been overvalued from 8 to 13 percent since 1995. This situation was exacerbated by China's resolve not to devalue its currency during the 1998 Asian financial crisis. Agricultural protection rates remained negative in recent years when calculated at real effective exchange rates. If the impact of the overvaluation of the domestic currency and the trade protection system is considered, agricultural incentives are further distorted, depressing food prices and redistributing income from farmers to urban consumers and the agroprocessing sector.

China has used subsidies for encouraging exports in some years (such as corn in 2000), but the support has been relatively small and only available in some provinces. Not surprisingly, exportable commodities—such as rice, corn, and cotton—are more heavily taxed than importable commodities, such as wheat. Export subsidies were ended as part of China's WTO accession commitments.

Trade Barriers: How High?

In 2001, China's agricultural import tariffs of 40 to 60 percent were higher than the average for industrial goods (17 percent). However, China's WTO commitments call for annual tariff reductions that will cut the average agricultural tariff to 17 percent by 2004. China's average agricultural tariffs will be considerably lower than those of most developing countries. In

the first few years after China's WTO accession, limited imports of important agricultural commodities (grains, cotton, vegetable oils, wool, and sugar) under a maximum tariff-rate quota (TRQ) will be allowed to enter at tariffs as low as 1 percent. Imports above the TRQ quantity will be assessed a tariff that is much higher, but still below those assessed by many other countries. WTO commitments will likely preclude China from following the protection-based agricultural trade policies used by its more developed East Asian neighbors.

While China's tariff reductions suggest more open trade, China also maintains a variety of nontariff barriers that restrict imports, including import licenses, and state trading. Phytosanitary and food safety measures, such as China's regulations on genetically modified agricultural products, should be science based, according to WTO rules, but many observers are concerned that China will use such measures to block imports (see "Is Biotechnology in China's Future?" in this report).

Little evidence points to increased reliance on comparative advantage in China's agriculture. The modest and

limited expansion of agricultural trade along comparative advantage lines is striking, despite an overall increase in China's foreign trade. The country's WTO membership is likely to have a significant impact on the future pattern of China's agricultural trade, assuming the WTO will reduce China's tariff and nontariff agricultural trade barriers and those of its trading partners.

Further Reading

Carter, C.A., and S. Rozelle. "Will China Become a Major Force in World Food Markets?" *Review of Agricultural Economics*, Vol. 23, Fall/Winter 2001, pp. 319-332.

U.S. Trade Representative. *National Trade Estimate Report on Foreign Trade Barriers: China*, U.S. Trade Representative, 2001.

World Bank. *World Development Indicators*, World Bank, 2001.

World Trade Organization. *International Trade Statistics 2001*, World Trade Organization, 2001, http://www.wto.org/english/res_e/statis_e/statis_e.htm