

Subsidized Corn Exports Help Prices Rebound

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Highlights: In 2001, corn prices in China rebounded from the low levels seen during 2000. A second straight year of drought will result in another relatively small corn crop. Corn exports are not likely to return to the high levels seen during 2000. China's corn exports are highly uncertain because they depend on internal government decisions about continued export subsidies, the level and condition of government-held stocks, and the timing of China's WTO entry.

Corn prices rose in the first half of 2001, a reversal of steady declines in 1999 and 2000, but prices were still well below the peak levels of earlier years. Corn prices have had wide swings over the past 10 years, and 2000 was the trough of a 6-year fluctuation (fig. D-1). Corn prices peaked in 1995 at levels that were 60 percent higher than in 2000. Thus, while prices rose in 2001, they are still well below historical highs. Corn prices are, however, above world prices, which will tend to keep China corn prices from rising further, especially as WTO accession approaches.

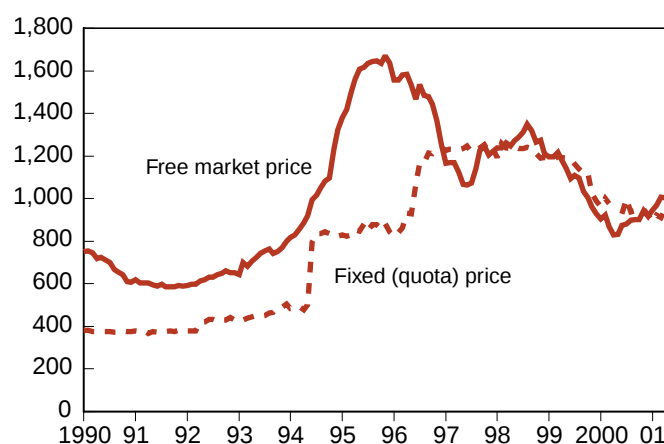
China's corn sector is still experiencing the after-effects of a record harvest in 1998. Reportedly, storage facilities were filled beyond capacity in 1999 and 2000. Abundant supplies of corn drove prices down, making it impossible for grain bureaus to sell off stocks of corn bought at higher prices in earlier years. The government has been under pressure to reduce stocks during the last 2 years and has done so by limiting procurement of new grain, subsidizing export sales, and cutting off imports.

A fall in production and a surge in subsidized exports during 2000 probably relieved pressure on corn stocks (table D-1). During 2000, plunging corn acreage and severe drought in corn-growing areas cut production by an estimated 18 percent. China does not publicize information on corn stocks, but some analysts estimate that stocks may have fallen by 20 million tons during 2000 (see "USDA Revision of China Grain Stock Estimates" in this report).

Figure D-1

Monthly China corn prices

Yuan per ton



Note: The quota price is the price paid by government grain bureaus to farmers for grain delivered to fulfill mandatory quotas. It is known as procurement price and protection price. The free-market price is the price determined in the emerging free markets for grain, including private traders and mills.

Source: China's Ministry of Agriculture.

China's corn production during 2001/02 is expected to be hurt by a second straight year of drought. Severe drought early in the growing season affected the north-eastern corn crop. Summer rains relieved the north-eastern drought, but another drought occurred in central China, damaging the crop in that region. Corn acreage in China in 2001/02 is estimated slightly higher than 2000/01. Corn production for 2001/02 is projected to be 108 million tons, slightly higher than

Table D-1—China's corn production, trade, and stocks, 1998/99-2001/02

Item	1998/99	1999/2000	2000/01	2001/02
<i>Million tons</i>				
Production	133.0	128.1	106.0	108.0
Imports	0.3	0.1	0.1	0.2
Exports	3.3	9.9	7.0	4.0
Ending stocks	102.1	102.3	81.4	61.6

Note: Crop year is October through September.

Source: U.S. Department of Agriculture, *World Agricultural Supply and Demand Estimates*, October 12, 2001.

the 106 million tons in 2000/01, again well below high levels of earlier years.

In large corn-producing provinces of the north China plain, such as Shandong and Henan, attractive prices for cotton and other cash crops may have reduced corn area for 2001/02. Cash crop alternatives are more limited in the colder northeastern provinces (such as Jilin, Liaoning, Heilongjiang and Inner Mongolia) (fig. D-2). Procurement prices set by the government strongly favored corn over soybeans, helping to boost corn area in northeastern provinces where soybeans are the chief competing crop (see "Policy Changes Continue to Affect China's Oilseeds Trade Mix" in this report).

Corn Exports Subsidized

In most years, China is a major exporter of corn. Its exports go mostly to other Asian countries, primarily South Korea, Malaysia, Indonesia, and other countries of southeastern Asia (fig. D-3). Year-to-year fluctuations in China's exports make the country a key factor in international corn markets. As with most other commodities in China, the corn trade is difficult to predict because it is conducted by state trading entities and is guided largely by internal policy decisions and domestic stock levels that are not revealed to the public.

China's corn exports were about 10 million tons for the 1999/00 marketing year. Despite poor harvests during that year, the total tonnage represents one of the country's highest-ever corn export volumes. Corn exports for calendar year 2000 were up 143 percent over the previous year. Corn exports continued at a strong pace during the first 3 months of 2001, at nearly 2.3 million tons, but slowed in subsequent months. Most of the 2001 exports went to South Korea and Malaysia.

Since domestic corn prices are substantially above world prices, export subsidies are needed to sell corn on world markets. In 2000, the central government provided a \$31 per ton subsidy that was supplemented by an additional \$13 per ton subsidy from the Jilin provincial government. The total subsidy for Jilin corn was \$44 per ton. Jilin, a major corn-producing province in northeastern China, plays an increasingly prominent role in China's corn export business.

China Corn Exports Likely To Shrink as Subsidies End

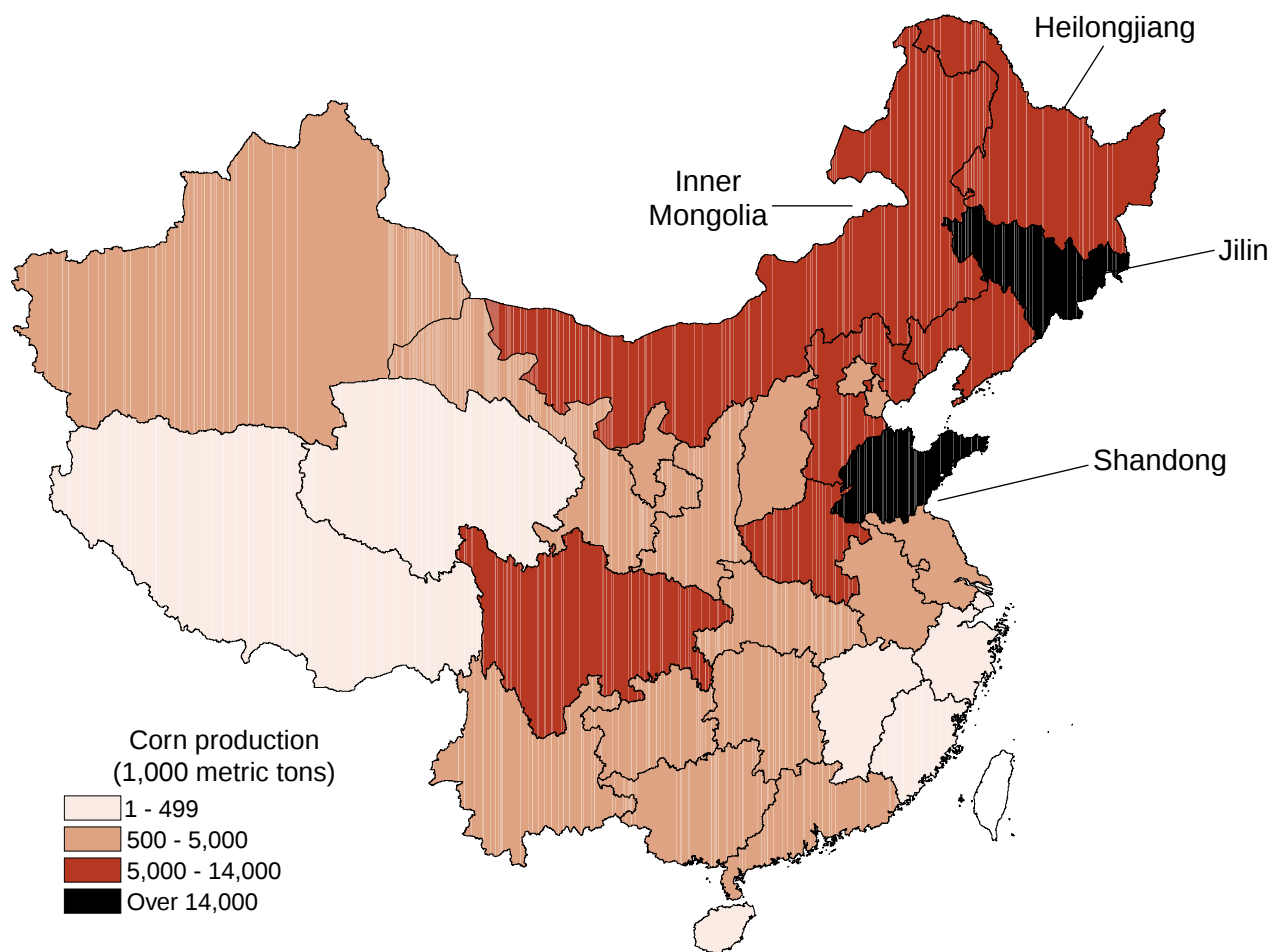
Early in 2001, there was much speculation about whether export subsidies would continue. China's export subsidies will be eliminated upon the country's entry into the WTO, but the timing of China's WTO entry was still uncertain. Correspondingly, there was great uncertainty (both inside and outside China) about whether export subsidies would be offered. Rising domestic corn prices also worked strongly against exports, and the growing gap between domestic and world prices increased the potential cost of export subsidies.

China's WTO entry will have a major impact on its corn sector. According to the terms of the 1999 U.S.-China bilateral agreement, China established a 4.5-million-ton tariff-rate quota for corn that would rise from 5.85 million tons in 2002 to 7.2 million tons in 2004 (see "U.S.-China Bilateral WTO Agreement and Beyond" in this report). Imports within the quota would be subject to a low 1-percent tariff, and over-quota imports would be subject to a prohibitive 80-percent tariff that would fall to 40 percent by 2004. Perhaps more important, the monopoly of state-controlled trading enterprises over import and export of corn would be reduced. Nonstate trading companies would be allocated a share of the quota that would rise to 40 percent by 2004. However, the agreement neither defined what constitutes a nonstate trading entity nor specified the mechanism for allocating imports to nonstate entities.

After WTO accession, China could swing from a net exporter to a net importer of corn. Most corn imports would be used to feed livestock in China's corn-deficit southern provinces, while northern provinces would continue to supply most of their own corn. Competition from imports would reduce domestic prices for corn, leading to less corn acreage and production in China.

Figure D-2

Corn production by province, 1999



Source: *China Rural Statistical Yearbook*, 2000.

China's livestock industry, however, would likely expand with access to cheaper feed.

China a Net Importer?

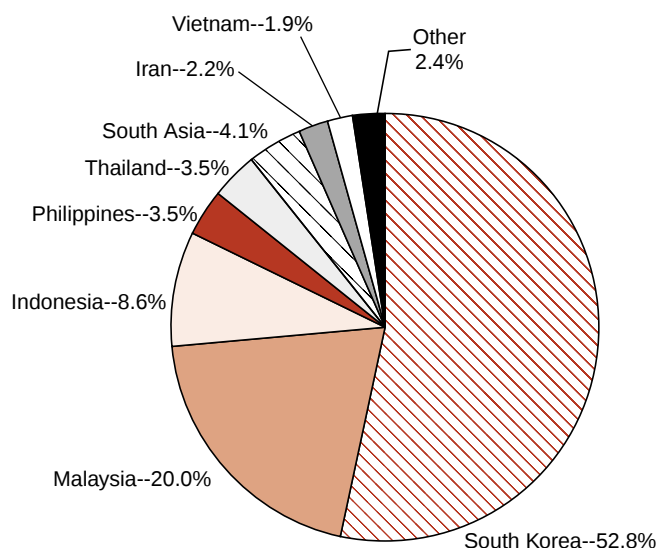
Rising incomes in China are expected to boost demand for meat, thereby increasing demand for corn to feed growing livestock numbers. According to USDA's long-term projections to 2010 (under a scenario that does not assume WTO accession), China is projected to shift from being a net corn exporter to a net corn importer midway through the projection period. China is expected to continue to export 2-4 million tons of corn to eastern and southeastern Asia throughout the entire period, far less than the country's recent peak of 10 million tons exported in 1999/00. Imports are

expected to reach 4-6 million tons by the end of the projection period, significantly higher than the 150,000 tons estimated for 2000/01.

Projecting China's long-term corn supply and demand is extremely difficult. In particular, two critical factors are largely unknown: (1) the pace of structural change in China's livestock industry from backyard enterprises to specialized commercial operations, and (2) the growth in use of coarse grains and protein meals in feed rations (Fang et al.). Relatively small changes in the structure of the livestock sector or in commercial feed use could have a strong impact on the demand for corn. The implementation of China's new regulations governing genetically modified organisms could have an important effect on imports of corn and soybeans.

Figure D-3

China corn exports by country, 1999/2000



Note: South Asia includes India and Bangladesh.

Source: China Customs statistics.

Room for Efficiency Gains

China's system of corn production is inefficient. Most corn is grown on small plots of less than one-half hectare, and the process is labor intensive. Low funding levels constrain the effectiveness of China's large agricultural research and extension infrastructure, but progress is being made.

China's farmers are not well aware of the benefits of rotating corn and soybeans, and government procurement prices have traditionally encouraged corn production over soybeans. Thus, northeastern China has tended to export corn while simultaneously importing substantial quantities of soybeans. China's corn exports (10.5 million tons) were roughly equal to its soybean imports (10.4 million tons) in calendar year 2000. In recent years, soybean production has

increased, especially in Heilongjiang province, and the benefits of corn-soybean rotation are being disseminated to growers. In early 2001, Jilin province announced a plan to increase acreage devoted to corn-soybean rotation by two-thirds, from 3 million mu (200,000 hectares) in 2000 to 5 million mu (333,333 hectares) in 2001.¹ A decrease in the high corn-soybean price ratio would reinforce the movement toward corn-soybean rotations.

China is also exploring demand-side initiatives to help the corn sector that are familiar to U.S. observers. At least one proposal has been made for a national policy encouraging production of alcohol fuel additives made from corn, and several provinces are already moving in this direction. Alcohol fuel production facilities have recently begun operations in Henan and Heilongjiang provinces, and Jilin province has announced construction of a large plant that will begin production in 2002. This is a key project in the 10th Five-Year Plan.² Jilin officials have also called for greater development of value-added processing of corn in the province. China's motivations are similar to those motivating U.S. proponents of value-added initiatives: boost demand for corn and farm income, create employment opportunities, cut dependence on oil imports, and reduce air pollution.

References

Fang, Cheng, Frank Fuller, Michael Lopez, and Francis C. Tuan. *Livestock Production Slowly Evolving from Sideline to Principal Occupation*, U.S. Department of Agriculture, Economic Research Service, International Agricultural and Trade Reports: China, WRS-99-4, March 2000, pp. 24-28.

¹ 1 mu = 0.0667 hectares = 0.1647 acres.

² China's 10th Five-Year Plan is the government's economic development plan for years 2001-2005.