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China Corn Exports: Business as Usual, Despite WTO Entry

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Abstract

A decline in China's corn exports was expected to be a main effect of that country's accession to the World Trade Organization in December 2001. Instead, China's corn exports continued at a near-record pace during 2002. China has canceled direct export subsidies, but other policies have replaced them, although details of these new measures are not clear. This year's rising international prices have given an added boost to China's corn export program and delayed an expected increase in China's corn imports. In the long run, government policies that encourage exports may prove too costly to continue, and restructuring of China's corn and livestock sectors may reduce the flow of exports.

Keywords: China, corn, exports, imports, subsidies, value added tax (VAT), WTO, tariff rate quota.

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Introduction: Exports Unabated

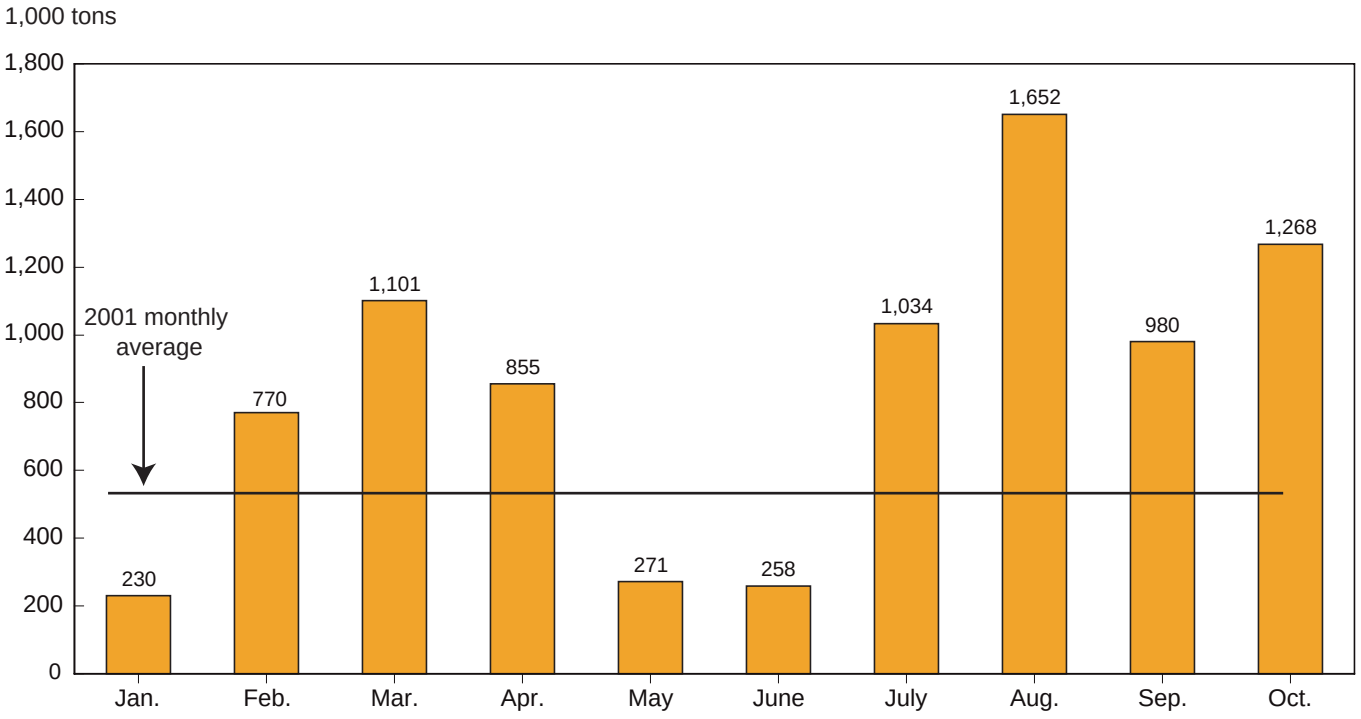
China was expected to reduce its corn exports and increase its imports after joining the World Trade Organization (WTO) in December 2001. The country's commitments as a WTO member required it to eliminate export subsidies for corn and open a 5.85-million-ton (mmt) quota for corn imports at a low 1-percent tariff.

Elimination of export subsidies was expected to make China's corn exports less competitive in 2002, but exports continued at an even faster pace than in the previous year. Corn exports averaged 840,000 tons per month from January to October 2002, 340,000 tons ahead of the monthly average for 2001 and close to the 872,000-ton average for 2000. If China's calendar year 2002 corn export total reaches 10 mmt, as many analysts predict, it would be one of China's highest: the country's annual corn exports normally fall in the 4- to 6-mmt range.

China's WTO commitments were expected to make it easier for Chinese customers to import corn, but the country's corn imports were negligible in 2002. Thus, China became an even bigger net exporter of corn during its first year as a WTO member.

Figure 1

China monthly corn exports, January-October 2002



Source: China Customs Statistics.

Subsidies for Exports

Subsidies are needed for China to offer competitive prices for its corn exports. In June 2002, wholesale prices in Jilin province, the primary corn-producing region in China, were 960 yuan ($116) per ton, and the price at the Dalian port (the primary point of departure for corn exports) for Chinese grade 2 corn was 1,050 yuan ($127) per ton. The U.S. Gulf price at that time was about $93 per ton. However, Chinese corn sales to South Korea were executed at $95-$105 per ton (FOB Dalian) in 2002, well below ex-warehouse prices in China's production areas.

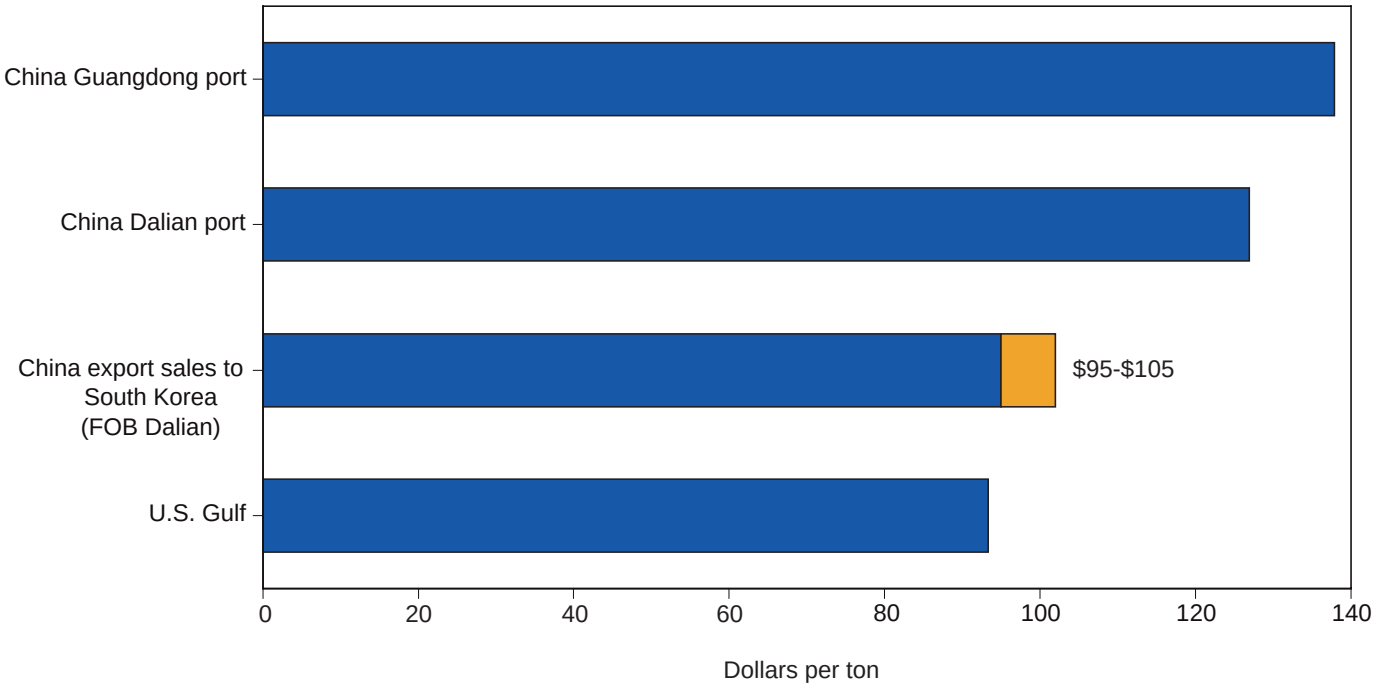
In years prior to 2002, China's corn exports were directly subsidized by central and provincial governments. The subsidy rate was as high as 378 yuan ($46) per ton in 2001 (Liu, Cao, and Liu, 2002) and 368 yuan ($44) in 1999 (Chinaonline.com). China claims to have eliminated direct export subsidies in 2002, as required by the country's WTO commitments. However, direct export subsidies have been replaced by other measures aimed at boosting corn sales. These include subsidies for sales of corn from state grain reserves, waiver of a railroad tax on grain shipments, subsidies for port fees, and a rebate of the value added tax (VAT) for exported corn (as well as for rice and wheat).

Information on the new policies is sketchy, and it is difficult to get a clear picture of how they work. An article on July 2, 2002 in *Beijing Farmer's Daily* assessed the effect of a new policy that waives a railroad construction fee for grain shipments. The article estimated that the rail tax waiver reduced the cost of shipping corn from the northeastern city of Changchun (in the main production area) to the southern city of Guangzhou (a primary consumption area) by 57 yuan ($7) per ton. This calculation may overstate the value of the policy, however, since much of the corn shipped from northeastern to southern China is transported by ship rather than rail.

Beijing Farmer's Daily also estimated that the VAT rebate would, in theory, reduce the cost of exporting corn by about 200 yuan ($24) per ton (see box, “China's Value Added Tax”). Jiang (2002) estimated that the new measures would provide a subsidy roughly equivalent to the earlier direct export subsidy, with the value estimated at 400 yuan ($48) per ton. Liu, Cao, and Liu estimated the measures could amount to savings of 151 yuan ($18) per ton for corn exports, although this estimate may not include the subsidy for sales of grain reserves.

Figure 2

China-U.S. corn price comparison, June 2002



Source: China National Grain and Oils Information Center, FoodChina.com, and U.S. Department of Agriculture.

Rising World Prices Boost China Exports

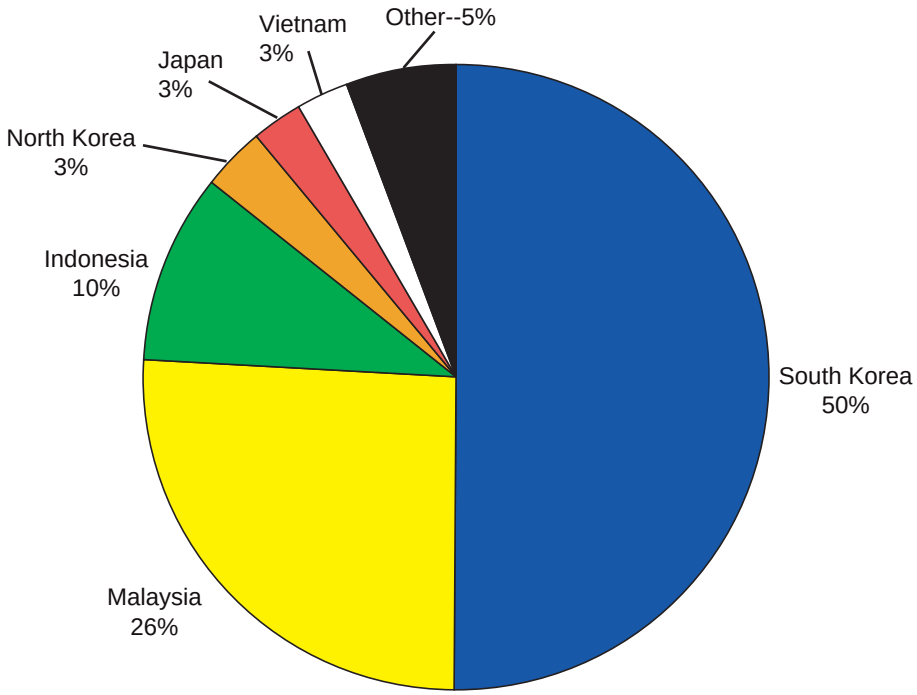
China's corn export program gained momentum due to rising world prices in July and August 2002, as growing conditions in the United States deteriorated and USDA forecast a relatively poor harvest. These market conditions boosted F.O.B. prices of U.S. corn to Asia, making Chinese corn even more attractive to nearby Asian countries. At the same time, growing conditions in China were relatively good, and analysts predicted one of China's largest-ever harvests.

South Korea is the destination for half of China's corn exports. By September 2002, prices of U.S. corn delivered to South Korea, including insurance and freight, had risen to $130-$140 per ton, while delivered prices of $115 or less were being offered by Chinese suppliers. China's corn exports averaged more than 1 mmt per month during August to October 2002. From January to August 2002, U.S. corn shipments to South Korea were down 70 percent from a year earlier.

China's State Development and Planning Commission reportedly encouraged China's two corn exporters, Jilin Grain Group and China National Cereals, Oils and Foodstuffs Import and Export Corporation (COFCO), to take advantage of world market conditions to increase China's corn exports (China Ministry of Agriculture, 2002). The tightening of the world corn market in midsummer 2002 coincided with a jump in monthly Chinese corn exports and the booking of export sales into 2003. By September, most analysts had raised their predictions for China's calendar year 2002 corn exports to 8-to-10 mmt.

Figure 3

Destination of Chinese corn exports, 2001/02



Note: Data are for October 2001-September 2002.

Source: China Customs Statistics reported by China Food and Agricultural Service, Inc.

China's Value Added Tax

Like many other countries, China assesses a value added tax (VAT) on each transaction as goods move through the processing and marketing chain. The VAT rate is generally 13 percent for corn and other grains, edible oils, fertilizer, pesticides, agricultural machinery, and plastic sheeting, but the rate can be 10 percent or lower. The rate is 17 percent for most other products. China's policymakers use VAT exemptions and differing VAT rates as a policy tool to encourage exports and production of certain products. The mechanics of VAT assessments also tend to discourage imports by making them more expensive than domestic products.

The VAT is a tax on "value added"—the difference between the sales value of a shipment of goods and the value of materials and intermediate goods used to produce those goods. For example, suppose a ton of corn sells for 1000 yuan and materials (seed, fertilizer, pesticides) valued at 200 yuan were used to produce the corn. The VAT would, in theory, be .13 x (1000 yuan - 200 yuan) = 104 yuan.

In practice, the VAT assessment is computed by finding the difference between a shipment's "purchase VAT" and its "sales VAT." When a shipment of goods is sold, a "sales VAT" is calculated as the VAT rate times the sale value. The shipment also has a "purchase VAT"—the VAT paid previously on transactions involving the materials and intermediate goods in a shipment. The seller pays tax authorities the difference between the sales VAT and the purchase VAT. In the example above, the sales VAT would be .13(1000 yuan) = 130 yuan, and the purchase VAT would be .13(200 yuan) = 26 yuan. The VAT would be 130 yuan - 26 yuan = 104 yuan.

Products sold by "agricultural producers" are not assessed a VAT (Wade, Branson, and Qing, 2000). For example, there is no VAT assessed on a sale of corn from a farmer to a trader or feed mill. However, a VAT is assessed when the trader sells the corn to someone else, and a purchase VAT must be determined for the trader's sale. The regulations set the purchase VAT for sales of commodities purchased from farmers at 10 percent of the purchase value (this assumes the farmer paid 10 percent of the product's value in VAT on inputs and materials he purchased).

Wade, Branson, and Qing argue that the 10-percent rate for calculating the purchase VAT overstates the amount of VAT paid for farm inputs. This reduces the effective VAT rate paid on domestic grain. Grain purchased by feed mills directly from farmers is not assessed any VAT at all. Imported grain, however, is assessed the full VAT rate (13 percent) on the sale value, so the VAT tends to make imported grain more expensive than domestic grain for Chinese customers. However, the VAT on imports may be waived by authorities when imports are needed.

Chinese policymakers have used the VAT as a key policy tool to influence the country's foreign trade. In 2002, China offered exporters rebates of VAT payments for exported corn, wheat, soymeal, and rice. The VAT rebate rate for soymeal exports was raised in 2002 to encourage exports and relieve excess supply on the domestic market. There is some controversy about what VAT rebate rate is appropriate. About half of the soybeans in China are imported (assessed a 13-percent VAT), while domestic soybeans are assessed a much lower effective VAT. In 1995, China eliminated the VAT on imported soymeal to encourage growth of the livestock industry. In 1999, the soymeal VAT was restored and the VAT on imported soybeans was reduced to aid the domestic soybean-crushing industry (Hsu, 2001).

China's policy of refunding VAT payments to grain exporters may be consistent with WTO rules if refunds are not greater than the tax actually paid. However, it is difficult to assess China's VAT due to the lack of transparency in its administration; the VAT may be applied differently in different areas and at different times. It is also important to note that no exporters in China had actually received any VAT rebates by September 2002, although the policy had been in place for at least 6 months.

Imports Minimal

China's corn imports remained at minimal levels in 2002. China's WTO agreement set a 5.85-mmt tariff-rate quota (TRQ) for imports of corn in 2002, 68 percent of which was to be allocated to state trading enterprises and 32 percent to nonstate enterprises. Imports will fall far short of the TRQ in 2002.[1] While the tariff is only 1 percent for in-quota imports, imported corn is also assessed a 13-percent VAT (see box, "China's Value Added Tax").[2] The VAT, plus the cost of shipping and unloading, elevated the cost of imports from the United States above the cost of domestic corn in July and August; rising U.S. prices pushed the cost to more than $130 per ton, eliminating prospects for any significant corn imports in calendar year 2002.

Other factors probably played a role in keeping corn imports minimal. Import quotas for 2002 were not distributed to private (nonstate) importers until April, and quotas for state traders were distributed even later, giving potential buyers little time to arrange purchases. Nonstate enterprise quotas were reportedly issued in small lots to over 255 enterprises. Only one potential importer received a quota large enough to fill a panamax-size vessel. Beginning in July, rising international corn prices made imports unattractive, so the quotas were mostly unused. Unused quota was due to be returned to the Government by September 15 for redistribution. The TRQ rises to 6.5 mmt in 2003 and 7.2 mmt in 2004, while the state trading share falls to 64 percent in 2003 and 60 percent in 2004.

A survey of private owners (mainly Chinese feed mills) of 2002 import quotas undertaken by a private consultant, China Food and Agricultural Services Inc., found that nearly all respondents planned to apply for larger quotas in 2003. Thus, there appears to be significant interest in importing corn when market conditions are right, even though quotas were not used in 2002.

China's new regulations on labeling food containing genetically modified organisms (GMOs) may be an additional obstacle to corn imports. Genetically modified corn will require safety certificates and a waiting period of up to 270 days for approval of import to China (as is the case for soybeans). Even conventional corn varieties may face import problems, since it will be difficult to prove that no transgenic corn or soybean material is present in a shipment. How Chinese officials decide to implement the GMO regulations for corn will have an important effect on imports.

Soft demand for corn from the Chinese livestock industry has been another factor working against corn imports. China's meat industry has been hurt by problems with disease, poor sanitation, and high chemical, water, and starch levels in meat products. Disease, high antibiotic content, and low quality have kept China's meat products out of foreign markets and raised concerns among domestic consumers about safety. Livestock prices and profits have not been very attractive in recent years, dampening growth of the industry and the overall demand for feed. Livestock producers have also substituted inexpensive low-quality rice and wheat for corn in livestock feeding, further softening the demand for corn. By mid-2002, the rice- and wheat-feeding trend seemed to be weakening as the price differential between corn and feed-quality rice and wheat narrowed. In the long run, China's growing demand for meat products suggests a more rapid growth in demand for corn, which is likely to increase imports.

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[1] The TRQ does not represent a purchase commitment by China. It is the minimum quota that must be made available to importers at a low 1-percent tariff. Market conditions determine whether or not trade actually takes place. Above-quota imports would be assessed a tariff of 60 percent in 2002. See Lohmar et al. (2002) and Economic Research Service, China Briefing Room, for details and projections of WTO accession impacts.

[2] Domestic corn is also subject to the VAT, but the effective VAT rate on domestic corn can be significantly lower than the official rate of 13 percent (Wade, Branson, and Qing, 2002).

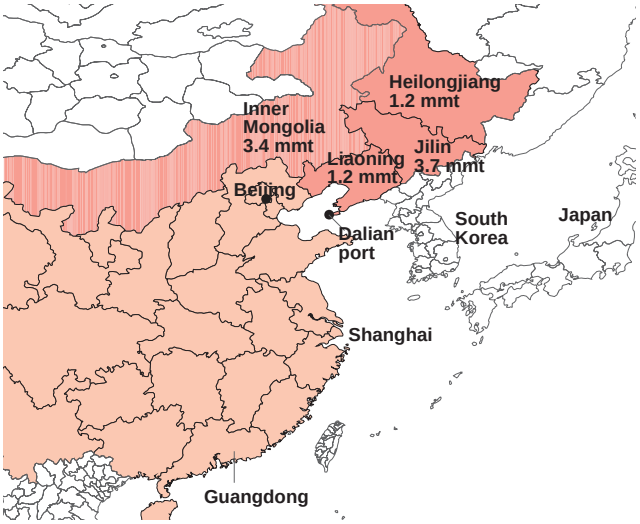
Exports Reduce China's Stocks

China's push to export corn is partly aimed at reducing government stocks. Reports from China suggest that stocks are still quite large, despite several years of significant decreases. Jilin Province alone reportedly had corn stocks of 40 million tons (including onfarm stocks) in March 2002, amounting to 2 years' production (Chinaonline.com, 2002; Jiang, 2002). USDA estimated that China held corn stocks of 102 mmt at the beginning of the 2000/01 marketing year, 60 percent of the world total (an estimate that includes only a portion of onfarm stocks in China and is based on sparse data). USDA estimates indicate that corn stocks fell about 20 mmt during 2000/01 and will fall another 18.4 mmt in 2001/02. This would still leave China with over 60 mmt, or about half of world stocks.

Exports equal roughly 7 to 8 percent of China's national production. However, it is important to note that 90 percent of China's corn exports originate in four northeastern provinces (fig. 4). In 2000, exports were equivalent to about one-third of production in the Northeast. By providing an outlet for the region's excess supply, subsidized corn exports probably kept northeastern corn prices above world levels in 2000 and 2001 (fig. 5).

Figure 4

Major Chinese corn-exporting provinces

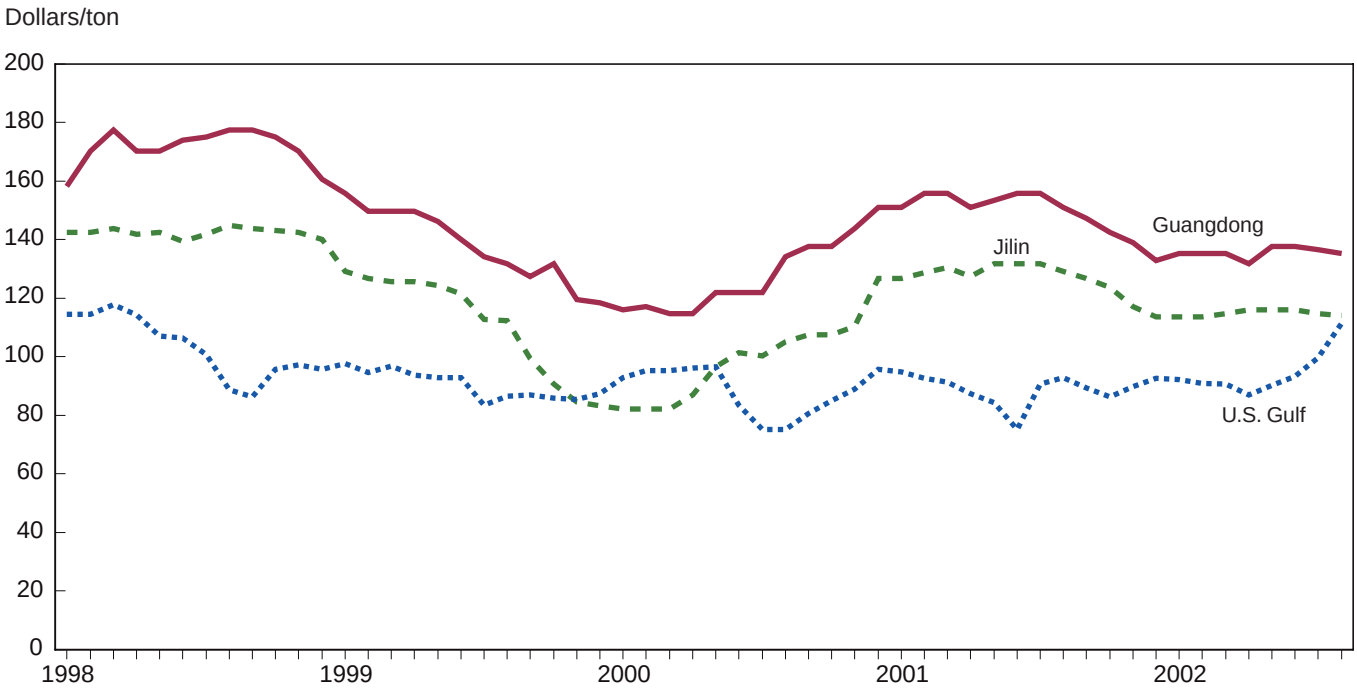


Note: Calendar year 2000 exports in million metric tons (mmt) are shown for provinces with over 1 mmt of exports.

Source: National Bureau of Statistics.

Figure 5

Comparison of corn prices, Jilin and Guangdong Provinces and U.S. Gulf, 1998-2002



Source: China National Grain and Oils Information Center and U.S. Department of Agriculture.

Less Corn, More Soybeans?

In terms of value, China's exports of corn and imports of soybeans have been roughly offsetting each other in recent years. China's corn exports need subsidies to be competitive, while heavy reliance on soybean imports has become a sore spot for some officials in China. Could a shift in acreage from corn to soybean production be in the offing?

Both crops are widely grown in China's northeast, a region with many similarities to the Midwestern United States. Some officials there have made statements indicating plans for a shift in production from corn to soybeans. Agricultural officials in northeastern Jilin Province have been encouraging farmers to rotate the two crops (a technique not widely practiced in China).

However, early estimates of 2002 soybean acreage suggest that there was little or no shift of acreage between corn and soybeans in China. The incentives are still skewed in favor of growing corn (Hsu, 2001). “Protection” (support) prices for corn are no longer offered in most of China, but northeastern provinces are still procuring corn at protection prices. Soybeans do not have a protection price, and their prices are not high enough to offset the lower yields of soybeans (2.2 tons per hectare in Jilin Province) compared with corn (over 6 tons per hectare in Jilin); net returns per hectare are higher for corn. Estimates from China's State Development and Planning Commission show that in 2001 the net profit from corn per mu (the Chinese measure for land area, about 1/6 acre) was 101.8 yuan, compared with 75 yuan for soybeans.

The corn-soybean price ratio seems to be falling. Lower protection prices for northeastern corn were announced for the 2002 crop. The average protection price in Jilin Province was reportedly scheduled to be cut 7 percent from its 2001 level, to about $105 per ton. Chinese soybean prices rose modestly as soybean imports were disrupted in late 2001 and in 2002 by uncertainty over China's new GMO regulations. However, soybean prices did not rise enough to induce a large shift of acreage to soybeans at planting time. Large stocks accumulated in 2001 probably kept prices from rising in early 2002. Chinese ports reportedly still had soybean stocks amounting to over 800,000 tons in January 2002 (about 5 percent of annual imports), despite the slowdown in imports during the latter half of 2001.

By mid-2002, China's soybean stocks had fallen and supplies had tightened considerably as soybean imports fell. Soybean prices rallied by about 35 percent from June to August—after planting decisions had already been made. Prices were expected to come down somewhat following the fall 2002 soybean harvest, but more acreage could shift to soybeans if prices remain high until the 2003 planting season. Farm prices for soybeans were expected to be about $244 per ton in major producing areas following the 2002 harvest.

WTO Impacts on the Way

It is becoming clear that WTO accession will not have immediate dramatic impacts on China's agricultural trade. China's policymakers are using various strategies to continue corn exports and block imports until burdensome stocks are drawn down to a manageable level. Policymakers will also seek to prevent sudden drops in corn prices that could lead to rural unrest in China's northeast, a region that experienced worker and farmer protests in 2001 and 2002 and is believed to be particularly vulnerable to international competition in both agriculture and industry.

In the long run, WTO accession will likely provide competitive pressures needed to integrate China's corn and livestock sectors with world markets and to restructure production for greater efficiency. Subsidies to support corn exports may prove too costly to continue indefinitely. China may shift its spending to direct subsidies to farmers. Additional pressure for a more open market for corn may come from southern livestock producers, feed mills, and consumers who stand to benefit from cheaper corn.

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