
The Impact of China's WTO Commitments

Under the terms of its accession to the World Trade Organization in 2001, China agreed to more far-reaching agricultural liberalization and reforms than other developing countries. Still, China's WTO commitments mark more of an extension of its past reforms than the setting of a new course.

This chapter reviews what China agreed to in WTO agriculture talks and its record to date in implementing those commitments. It looks in particular at the distributional effects of China's WTO obligations on the agricultural sector, since the potential for instability in the rural economy could constrain further welfare-enhancing reforms, even if the rural population is generally satisfied with the results of the reform process.

China's WTO commitments can be grouped into three areas: market access, domestic supports, and export subsidies. On market access, China agreed to lower tariffs on almost all agricultural products, increase foreign access for some commodities through tariff rate quotas (TRQs), and remove quantitative restrictions on others. Simple average statutory agricultural import tariffs have been scheduled for reduction from 21 percent in 2001 to 17 percent once WTO commitments are fully phased in.¹ This continues earlier trends, evidence that joining the WTO was for China not

1. Depending on how preaccession agricultural-sector tariffs are weighted, the movement is either from 21 to 17 percent, or from 17 to 14 percent. The latter figure is cited in Lardy (2002, 65) based on an earlier WTO press release. The point here is the continued reduction of 3 to 4 percent in statutory terms in either case. As to the absolute level of tariffs, the more important point is that the applied trade-weighted tariff or tariff equivalent for total Chinese agriculture was 7.6 percent preaccession and headed toward 3.6 percent postaccession. See Ianchovichina and Martin (forthcoming, tables 2 and 3).

Table 4.1 Tariff rates on major agricultural imports under China's tariff-only protection regime (percent)

	Actual tariff rates in 2001	Effective as of	
		January 1, 2002	January 1, 2004
Barley	114 (3) ^a	3	3
Soybeans	3 ^b	3	3
Citrus	40	20	12
Other fruits	30–40	13–20	10–13
Vegetables	30–50	13–29	10–15
Beef	45	23.2	12
Pork	20	18.4	12
Poultry meat	20	18.4	10
Dairy products	50	20–37	10–12
Wine	65	45	14
Tobacco	34	28	10

- a. Barley was subject to license and import quotas. The tariff rate was 3 percent for imports within the quota, and no above-quota barley with a 114 percent tariff was imported in 2001.
- b. Tariff rate was as high as 114 percent before 2000 and lowered to 3 percent in early 2000.

Source: China's WTO *Protocol of Accession*, November 2001.

a major departure but rather another step along the road to opening up. The simple average agricultural import tariff fell from 42.2 percent in 1992 to 23.6 percent in 1998. Agricultural products including horticulture, live-stock, fisheries, wine, tobacco, soybeans, and barley will become part of a tariff-only regime (table 4.1) to which the only exceptions are "national strategic products." Aside from these special cases, China's WTO accession terms stipulate that all nontariff barriers and licensing and quota processes will be eliminated, such that only the tariffs will remain. This is in keeping with the core principle of "tariffication" of the General Agreement on Tariffs and Trade (GATT). Since China's tariff cuts are bound and cannot be lifted in the face of rising imports, lower trade barriers should lead to new imports, especially for land-intensive commodities such as maize and many fruits and vegetables for which China is not a low-cost producer.²

China's WTO agreement allows officials to manage trade of rice, wheat, maize, edible oils, sugar, cotton, and wool under special rules with

2. Importantly, though published tariff rates fall on almost all commodities, significant new imports will not always follow. The reason is simple: China has comparative advantage in many commodities. For example, lower tariffs on horticulture and meat products may impact the domestic market only marginally, because foreign supply is suited mostly to high-quality niches (such as high-end hotels) and is less competitive with domestic-quality production. Although tariffs fall for almost all products, since China produces many commodities below world prices, tariff reductions will not dramatically affect producers or traders.

Table 4.2 China's market access commitments on farm products subject to tariff rate quotas

Farm product	Import volume (MMT) (state trading share)			Annual quota growth (percent)	In-quota tariff (percent)	Out-of-quota tariff (percent) as of January 1:		
	Actual 2000	Quota 2002	Quota 2004			2002	2003	2004
Rice	0.24 (100) ^a	3.76 (50)	5.32 (50)	19	1	74	71	65
Wheat	0.87 (100)	8.45 (90)	9.64 (90)	8	1	71	68	65
Maize	0.0 (100)	5.70 (67)	7.20 (60)	13	1	71	68	65
Cotton	0.05 (100)	0.82 (33)	0.89 (33)	5	1	54	47	40
Wool ^b	0.30	0.34	0.37	5	1	38	38	38
Edible oils ^c	1.79 (100)	5.69 (40)	6.81 (10)	15	9	75	72	68
Sugar ^d	0.64	1.68	1.95	8	20	90	72	50

MMT = millions of metric tons

- a. Figures in parentheses are the share in percent of nonstate trading within import quota.
- b. Designated trading in 2002–04 and phased out thereafter.
- c. Tariff rate quota regime will be phased out in 2006. The import quota in 2005 will be 7.27 MMT with a 9 percent in-quota tariff and a 65 percent out-of-quota tariff.
- d. Phased-out quota for state trade; 2004 in-quota tariff falls to 15 percent.

Sources: China's WTO *Protocol of Accession*, November 2001; NBS, *China Statistical Yearbook*, 2001.

TRQs. Table 4.2 shows that while the in-quota tariff under these TRQs is 20 percent for sugar and 9 percent for edible oils, the tariff is only 1 percent for rice, wheat, maize, and wool. While the amount of the commodity permitted entry at these tariff rates is limited, the volume was set to increase over 2002–04 at annual rates ranging from 4 to 19 percent. Tariffs on out-of-quota sales also dropped substantially in the first year of accession and were expected to fall further between 2002 and 2005.³

It should be noted, however, that China is not obligated to import the quantities stipulated in its TRQ schedule if there is no demand. TRQs provide minimum market access opportunities, not commitments. China promises to permit competition in import markets for these national strategic products so that there can be imports up to TRQ levels should there be demand (i.e., should the c.i.f. [cost, insurance, and freight] world price

3. Many of these rates are high enough—65 percent for grains and sugar in 2004 and edible oils in 2005—that in the coming years they will be prohibitive (table 4.2). However, in a comparative sense, the rates are not high. In fact, above-quota tariff rates of 65 percent are low internationally. Most Asian countries that have a TRQ system have high-tariff bindings that are two to five times higher.

be below China's price). The TRQ administration system developed in China's accession agreement broke some new ground that the WTO will use again in the future. In the past, administration of TRQs was covered in little detail under Article XIII of the GATT agreement and a few other provisions. China's accession terms (and those for Taiwan as well) included far more detailed rules on the administration of TRQs. The United States has now proposed adopting such detailed rules in the WTO as part of its position in WTO Doha Round Agriculture Committee talks. The rules are designed to make imports more competitive by allocating a share of the TRQ import rights to the private sector, reducing the role of state trading, and providing a more transparent process for this allocation. The system still has not been implemented as it should be by China, but there has been progress.

In return for allowing other nations greater access to its markets, China is supposed to gain fairly regulated access to foreign markets for its agricultural products. As a WTO member, China now faces the tariff schedules and lower nontariff barriers that govern trade among WTO economies on a statutory basis. Prior to China's WTO accession, important markets like the United States could unilaterally withdraw its most favored nation (MFN) tariff status, and other members were not compelled to use more disciplined WTO-consistent procedures in assessing dumping duties and other protective measures against Chinese exports. (Tariffs today on many agricultural goods from China are lower than in the pre-WTO era, as developing members phase in previously agreed-on tariff reductions on a lengthy timetable, but this is true for all members and is not a result of China's accession.) China's WTO membership also gives it access to the dispute resolution mechanisms that help adjudicate conflicts between members, and protects it against any arbitrary imposition of tariffs or nontariff barriers.

Access to China's markets will expand four to five years after its accession date. For example, by 2006 China is to phase out TRQs for edible oils. The TRQ for maize will remain after 2005 but the in-quota volume will increase. State trading monopolies for wool will be phased out after 2004, and are supposed to gradually disappear in the next round of the WTO agreement. Although the Chinese National Cereals, Oils, and Foodstuffs Import & Export Company (COFCO) and other state trading enterprises will continue to play an important role in rice, wheat, and maize imports and exports, elimination of trading monopolies will heighten competition from private grain-trading firms. That said, since the import quota allocated to private traders in grain is only 10 percent of the total, the state's role in this commodity is not set to diminish under present agreements.

The WTO agreement extends beyond market access to the area of subsidies. China agreed to immediately eliminate agricultural export subsidies, a move that was expected to have a large effect on its maize economy. It also agreed not to introduce new export subsidies in the future.

Although clearly a developing country, China agreed to limit product-specific domestic subsidy supports to only 8.5 percent of the total value of production of a basic agricultural product (compared with 10 percent for other developing countries). This 8.5 percent cap applies to the aggregate level of domestic subsidies as well. Farmer investment subsidies and input subsidies for poor and resource-scarce farmers—supports that are generally available to developing countries—are not permitted for China, which must include any such support as part of its aggregate measure of support (AMS). The support must be less than 8.5 percent of agricultural output values. China is far from this cap and therefore able to liberally expand domestic supports (provided they do not spill into export subsidization), so agreeing to a cap lower than developing-country norms was a useful concession.

Procedurally, other WTO members are permitted special antidumping provisions applicable to China for 15 years, making it easier to bring, prove, and enforce dumping cases against China. For instance, China can be treated as a “nonmarket economy” in these cases, which gives petitioners greater latitude to find offending cost structures and higher dumping margins.

Many of China’s WTO commitments outside of agriculture also have an effect on its agricultural sector. For example, under its industrial commitments that cover agricultural chemicals, China has agreed to replace quantitative import restrictions on three types of fertilizers—diammonium phosphate (DAP), nitrogen, phosphoric acid and potash (NPK), and urea—with less trade-distorting TRQs. Tariffs were cut upon accession and further cuts will be phased in by 2005 on almost all industrial products related to agriculture, such as tractors and pesticides. Furthermore, China is required to significantly reduce its nontariff measures and eliminate all quotas, tendering, and import licensing on nonfarm merchandise by no later than 2005. This is certain to have dynamic effects on income and structural adjustment that will benefit agriculture. Together with its other commitments outside the agricultural sector—such as changes in rules on foreign direct investment, the establishment of wholly owned import and export firms, and the liberalization of rules in the distribution and logistics sector—China’s agricultural commitments make its WTO terms uniquely progressive among developing countries and place it in front of the pack in terms of agricultural trade regime liberalization.

China’s WTO Track Record

China earned generally good grades for its first year and a half of WTO membership, though there was room for improvement. This section examines China’s WTO record as an importer and exporter. Because world agricultural commodity prices are more volatile than many other

tradables, China's performance in this regard over such a short time frame must be judged carefully. Short-term price shifts can mask changes in trade that would be seen under normal supply and demand conditions (e.g., unaffected by weather). Shortly after China's accession, as it turns out, international prices for many agricultural commodities rose for reasons quite apart from China's trade policy. Hence it is difficult to assess whether the lack of increase in some commodity imports is due to market conditions or to remaining trade barriers. It is correspondingly hard to know (yet) how China would have behaved had international prices been such that there was a large gap between China's domestic price (high) and the world market price (low). Table 4.3 summarizes the market context for selected commodities.

Soybeans and edible oils have continued to be major winners for foreign shippers in China's agricultural trade during the post-WTO accession period, despite the recent use of nontariff barriers (table 4.3, column 2). According to China's WTO commitments, soybean tariffs would fall to 3 percent and any trading firm could have the right to import. Soybean oil is subject to a TRQ until 2005. While soybean imports increased significantly in 2003—to nearly 20 million metric tons (MMT)—some importers claim that inappropriate means are being used to restrict such imports, principally the use of sanitary and phytosanitary rules and spurious licensing requirements. It is also possible that China's assessment of a value-added tax (VAT) on imports is keeping out even greater volumes of soybeans. Since China does not assess a VAT on its own farm-level procurement of soybeans (or on any other agricultural staple commodity), taxes on imports at a different rate than on the domestic product may well violate the obligation to provide "national treatment" to imports aside from admissible tariffs and other permitted barriers (such as safeguards and standard measures).

China's differential application of the VAT regime is potentially a serious WTO problem. Rozelle (2003a) and Gale and Hansen (2003) document these practices through careful interview and survey work in China, and based on comparison with international prices. Surprisingly, however, the practices have received little scrutiny from trade officials in other nations, presumably because they have been preoccupied with other trade issues and because the task of challenging tax policies with trade implications is daunting.

Maize trade patterns 18 months after China joined the WTO probably deviated most from those expected prior to the agreement (table 4.3, column 3). Prior to WTO accession, China's domestic maize prices were more than 30 percent above the world price. Many observers therefore expected maize imports to fill a TRQ of around 5 MMT. At the very least, with export subsidies eliminated, China's maize exports were expected to end. In fact, with rising international prices and differential application of the VAT at the border, maize imports have been unprofitable. Prices for inter-

Table 4.3 China's 18-month post-WTO accession agricultural trade record in selected commodities

	Soybeans	Maize	Wheat	Sugar	Dairy	Horticulture and livestock
WTO commitment	Soybeans: tariff cuts (to 3 percent); Edible oils: TRQ (6.81 MMT in 2004)	TRQ (7.2 MMT in 2004)	TRQ (9.64 MMT in 2004)	TRQ (1.95 MMT in 2004)	Tariff only (10–12 percent by 2004)	Tariff only (10–15 percent by 2004)
18-month record	Rapidly rising imports	Continued and expanded exports	Low level of imports, but mainly due to terms of trade	Imports fall, probably due to domestic output increase; TRQ does not fill, but government not allocating import quotas to firms that still want them; world price may be too high, since China can still protect up to 33 percent	Rising levels of imports	Some imports of high-quality commodities; exports continue but increase only in early 2003 and at a lower rate than before WTO accession
Indications of policy	Potential to use SPS measures due to genetic modification issues; also, VAT reduces volume	Continued use of export subsidies	Accusations that TRQ implementation reduced imports, but not likely	TRQs working, but reports of problems in quota allocation	Imports by traders as needed	New SPS regulations used by Japan and Korea keep exports down

TRQ = tariff rate quotas

MMT = millions of metric tons

SPS = sanitary and phytosanitary rules

VAT = value-added tax

Source: Authors' research.

nal maize shipments headed for Guangzhou (from Dalian) remained above those headed for Korea, indicating that China has continued to subsidize maize exports during the postaccession period. Thus, through export subsidies and higher international prices, China not only did not import maize but also expanded exports in 2002 to a record high of more than 10 MMT. Rising prices in China at the end of 2003, however, have induced leaders to announce a complete elimination of maize subsidies.

Like maize, other crops managed by TRQs have a questionable record. Wheat imports were down during the first 18 months after China joined the WTO. During the first several months this was because the TRQ administration system had not been implemented,⁴ but subsequently it was most likely due to high international prices (except during the first several months after accession). Cotton imports were low during the first year, but China's raw cotton imports doubled in 2002 and grew even faster in 2003, with the US share of that market increasing. Observers in cotton-growing nations (including the United States) blame the TRQ administration system for limiting imports, although the US Grains Council argues to the contrary (Rozelle 2003a). Even though some of the ways that China has implemented the TRQs appear to contravene its accession agreement, the US Grains Council claims that TRQ management generally did not keep out agricultural commodities when the price differentials between the world and China's domestic market justified importing. While TRQs for wool have not been filled, Chinese imports of this commodity have still risen steadily.

Sugar is another case where the TRQ system may not be working as intended, undermining both domestic and foreign sugar interests in China. Chinese sugar imports were down more than 40 percent from January through July 2003. Sources in China say higher prices orchestrated by government policies⁵ to reverse several years of price weakness induced China's farmers to produce more for 2003, causing output to increase to a record level of 10.2 MMT by September as compared to output of 9 MMT in 2002 up to the same month. As a result, only 410,000 tons of sugar was

4. Examination of the gap between China's domestic price and the international price in early 2002 suggests that imports most likely would have been profitable, but importers could not take advantage of the trading opportunities because the TRQ administration system was not implemented until late spring. China claims it could not implement the TRQ system in early January as stipulated in the agreement because it did not join the WTO until December 2001. A report by the US Government Accounting Office (GAO) concurs with this explanation and does not cite negligent behavior.

5. This is according to Beijing Orient Agribusiness Consulting, a firm tied to the Ministry of Agriculture, as reported in the *Shanghai Daily* on June 5, 2003. Since the in-quota tariff in China is 20 percent, and in the case of sugar a 13 percent VAT is probably WTO-consistent, the world market price has to fall to more than 33 percent below China's price before private traders would have an incentive to bring in sugar. At times during 2003, the price gap was not that wide.

imported against a quota of 1.95 MMT for 2003 (as of July). It is difficult to say how much this is a result of world prices that are high relative to China's prices. China's domestic sugar prices tend to settle just below the world price minus the border tax differential, regardless of domestic costs of production—that is, there is no real competition. But while the TRQ system does not require certain import volumes, it is supposed to fairly and transparently administer the distribution of quota rights, including distribution to the private sector. China's sugar quota rights, 30 percent of which are to go to the private sector, are not being used up. Moreover, some private firms requesting an allocation of the unused quota have been denied access to it. That is a WTO problem, regardless of the relationship between world prices and China's domestic prices.

It is also a problem for the welfare of China's public. Fair access to TRQ import rights would permit the market mechanism to show whether it is economical to import into China, instead of leaving the answer to regulators who are often biased toward state-owned firms in the market. Sugar is a crop with little strategic or food security significance for China, making it a candidate to distract from all of China's laudable efforts to adjust to WTO rules just because its quotas are not distributed fairly. Some sugar producers in China might benefit from this situation, but they are contributing few new jobs or tax revenues. New jobs are created by China's booming food processing industry, which is a consumer of sugar. A more competitive sugar market characterized by fair administration of quotas or, better yet, by elimination of quotas and establishment of a more open market in this commodity—which is not well suited to China's comparative advantage anyway—would likely create more exports, jobs, and tax revenues. Even the world's most competitive sugar producers, Thailand and Brazil, must provide subsidies to producers because the global sugar industry is so distorted. Inducing growth in sugar production in China at the cost of precious tax dollars and lost efficiency for both commercial and individual consumers is not only a losing economic game for China⁶ but also detrimental to the country's already troubled environment, since inefficient sugar farming can be environmentally hazardous.

For commodities not subject to TRQ administration, cuts in tariffs and improved market access to international markets have generally been positive for China in the aggregate. Sharp reductions in tariffs on milk powder and butterfats, for example, have spurred imports. Interestingly, while higher imports of dairy products have helped firms that use these commodities as inputs, total domestic demand for dairy products is increasing so steeply that local producers feel little pain. The record is

6. See Beghin and Aksoy (2003, 3) for an assessment of what liberalization would mean for global trade in a number of commodities, including sugar.

more mixed, however, for imports of fruits, nuts, vegetables, and livestock products. For example, walnut imports reached an all-time high in 2002, and the process for bringing in boxed fruit from the United States and other countries also made it easier to import such commodities. However, rising complaints about China's increasing use of sanitary and phytosanitary rules echo frustrations in trying to expand the exports of certain types of meat products. Some claim that while the total quantity of horticulture and livestock imports is about the same, the main difference between preaccession and postaccession trade in these products is that sanitary and phytosanitary rules have replaced quantitative restrictions. In fact, China Customs Statistics reports an increase in the aggregate value of imports of all fruits, vegetables, meats, and processed goods during the first 18 months that China was a member of the WTO.

China's record since joining the WTO on imports of agricultural inputs such as farm chemicals has been more positive, according to quantitative analysis and interviews with firms that import, distribute, and manufacture these products. While TRQs for phosphate- and potassium-based fertilizers have not been filled, imports of some commodities have risen. Farmers also have benefited from higher imports and the downward pressure of prices that has accompanied rising availability (Qiao et al. 2003). Changes in the trade environment for agricultural pesticides are even more dramatic. Interviews during the 1990s with farmers, domestic manufacturers, and officials from multinational firms either in joint ventures or running wholly owned subsidiaries found a shortage of foreign-made pesticides and raw chemical ingredients for producing higher-quality pesticides. Distribution constraints limited the reach of these products and dampened demand. Today, foreign firms report fewer barriers to importing pesticides. Trading rights and distribution-sector regulations still impede foreign imports and sales, but these issues are covered by new WTO obligations scheduled to start in December 2004 and early 2005.⁷

Turning to the fortunes of China's exporters, some barriers have gone up since the nation's accession to the WTO. After rising 10 percent annually from the mid-1990s onward, horticultural exports actually stagnated in 2002. China's WTO negotiators had raised farmers' hopes of increased access to East Asian horticulture markets. Instead, China's exporters have found they face new rules and regulations (not caused by the WTO, but despite it). Sanitary and phytosanitary rules are proliferating in China's export markets, notably in Japan, Korea, and the European Union. Livestock exports also face increasingly strict regulations. However, during the first six months of 2003, exporters apparently began learning how to deal with the new rules governing trade. Exports of livestock products, fish, and horticultural commodities rebounded, rising between 5 and 10

7. See Rosen (1999) for a discussion of the important relationship between distribution sector rights and Chinese imports.

percent from the level of imports in the first six months of 2002, according to China Customs Statistics.

WTO Effects on Farmers

Policies that maximize welfare in the aggregate but exacerbate pockets of poverty and inequality beyond manageable levels are untenable. If the consequences of its reform include unsustainable inequalities that cannot be mitigated, then China will not fulfill existing policy commitments or subscribe to new ones. Past policy improved livelihoods for all income groups in absolute terms, thus enabling China to take on further commitments by joining the WTO. The same necessity exists going forward. Ensuring equitable distribution of the positive welfare effects from WTO commitments will determine whether China can undertake deeper agriculture-sector reform.

The impact on households of WTO-related changes in China can be analyzed and forecast using an approach that takes into account that farmers shift resources from activities hurt by trade reforms to those favored by it.⁸ Appendix A provides a more thorough description of the model employed here.

Both production and consumption are affected as China implements its WTO commitments. Using the analysis model, agricultural output values for the median income group five years after China implements its WTO commitment are projected to rise about 10 yuan per capita, equal to 0.6 percent of per capita income. During the same period, expenditures fall just 0.1 percent—a rate lower than the production increase. The net effect on the average farming household is small and stays that way at least through 2010. Gains from trade policy reforms in competitive sectors (especially for exportables such as livestock, fish, vegetables, and rice) and declines in uncompetitive sectors (e.g., maize and sugar crops) also offset one another in the aggregate. The median farm household gains only 40 yuan (a 2.5 percent income rise) by year 10 (2012). The model suggests that WTO reforms induce Chinese agricultural production to rise even as average prices fall. Prices for competitive crops increase, uncompetitive crop prices decline as lower world-priced products flow in, and Chinese farmers shift activities accordingly. At the end of the WTO tran-

8. The approach builds on previous use of the China Agricultural Policy Simulation Model (CAPSiM), a partial equilibrium framework employed in a number of other studies (e.g., Huang and Chen 1999). However, the analysis for this chapter makes one major change to the typical approach used for macro-policy analysis. The data are disaggregated into 33 groups based on 11 income categories in three regions of China. The aim of this new approach is to illustrate several key features of how poor households respond to trade policy shifts and why they may benefit less than richer households. For details on the CAPSiM methodology, see appendix A and Huang, Li, and Rozelle (2003).

sition period, actual agricultural output has risen thanks to structural adjustment. As long as farm households are able to respond to shifting price signals—which means they need both good information and, perhaps most importantly, access to finance to make necessary investments—structural adjustment can proceed and will help minimize detrimental income effects from China’s WTO commitments.

Not all farm households benefit equally from China’s WTO accession, however. Results suggest that in 2005 and 2010, eastern and central farmers in both median and poorer income categories increase their output from 20 to 100 percent more than western farmers. In terms of absolute (rather than relative) gains, higher-income groups do better in all regions of China. Two factors explain this superior gain. First, wealthier farmers already sow more of the crops affected by the reforms that contribute to China’s rising terms of trade. Hence they are poised to benefit disproportionately from further opening in the same direction. Second, wealthier groups tend to have land that supports higher yields for the same crops involved in terms-of-trade gains. The share of competitive crops (those with a domestic price below the international price) sown by the richest coastal farmers (74 percent) is more than twice the percentage sown by the poorest western farmers (36 percent). When these sown area shares are coupled with yields (e.g., coastal rice yields are more than 20 percent higher than those in western areas), the sources of the advantages are clear.

Although there are concerns about the impact of an increasingly open economy on China’s poor farmers, there are still more reasons to be optimistic. The rural poor do not benefit as much as the rich, but their output still rises. Expenditures on their production fall only slightly after 10 years of reform (less than 1 percent). Incorporating dynamic effects of the WTO beyond the agricultural sector also brightens the outlook. Workers gain access to employment in the rural industrial sector stoked by WTO, and impoverished former farmers make up a large part of the migrant workforce drawn by urban industrial and services-sector opportunities. Rural residents, as consumers, benefit from lower prices. The so-called Engel coefficient, which reflects how much disposable income people must spend on food, has improved markedly for rural dwellers in recent years, and with lower average prices partly brought about by WTO accession this trend will continue. Finally, all producers, including those in poor areas, benefit from lower fertilizer prices. Even without these offsetting gains of higher wages and cheaper consumer goods and inputs, annual losses due to WTO-induced competition only average about 50 yuan per household.

Allowable Domestic Supports

While losing 50 yuan would hurt poor maize farmers in central China as well as farm households in the northeast, that could be offset by a policy

that compensates the farmers by that same amount annually for the first several years after China's accession to the WTO. This could be achieved, for example, through direct payments or through policies that eliminate tuition and school fees. In either case, the support would more than offset the WTO's negative consequences, and China could probably afford it, despite its large number of farmers.⁹

Hence, as China begins to make decisions about how to manage its agricultural sector as a WTO member, the country in fact has many options. Although China accepted an 8.5 percent cap on the use of domestic support, it does not need nearly that much to offset the negative effects of its WTO commitments, since those effects are fairly small and concentrated on small groups of farmers. Instead, China has an opportunity to spend its allowable domestic support on such initiatives as research and development and water management, which will increase the competitiveness of the economy for years to come. From this perspective, China can fulfill its obligations and still have room to make more concessions if it feels it can gain in other parts of both its agricultural agreement and its overall WTO agreement outside of agriculture.

In fact, officials in Anhui and Jilin provinces have begun to experiment with direct subsidies to farm households. These provinces were chosen because of their high levels of production of maize and cotton, two crops most affected by the nation's WTO accession. The pilot program provides 10 yuan per mu (or 150 yuan per hectare) to farmers in areas that had been marketing large volumes of grain and cotton in past years. The subsidies are direct and untied, and the payments are made directly to households and not contingent on cultivating or marketing grain or fiber crops. If expanded, such a program would be more than sufficient to offset most if not all of the adverse effects of China's WTO accession agreement.

9. The current per-cow subsidy of \$900 in the European Union would be enough to provide an offsetting domestic support of 50 yuan in China for 149 households. See Rick Lazio's op-ed article entitled "Some Trade Barriers Won't Fall," *New York Times*, August 9, 2003, A11.