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China's WTO Accession Would Boost U.S. Ag Exports & Farm Income

Accession of China to the World Trade Organization (WTO) would potentially add $1.6 billion by 2005 to the annual tally of global U.S. exports of grains, oilseeds and oilseed products, and cotton. Much of the $1.6 billion represents direct U.S. sales to China; these commodities would enjoy significantly greater access to the immense Chinese market. This figure does not take into account other U.S. commodities such as fruit and vegetables, animal products, and tree nuts, which would also enjoy increased access once Chinese duty reductions are implemented. U.S. farm income stands to gain considerably from the rise in exports.

Over the past 20 years, U.S. agricultural exports to China have grown from negligible levels to $1.1 billion in fiscal year 1999. Estimation of additional exports under China's pending accession to the WTO are based on preliminary analysis by USDA's Economic Research Service (ERS). The analysis is in turn based on China's WTO commitments under the comprehensive bilateral trade agreement with the U.S.

The U.S.-China agreement, signed in Beijing on November 15, 1999, followed 13 years of negotiations. The agreement signaled China's desire and commitment to participate in the global trade community, and was a major step toward securing China's entry into the World Trade Organization (WTO).

After China negotiates bilateral agreements with several other WTO Members, all Working Party Members, including the U.S., must reach consensus on the draft protocol package—the complete package of commitments that will be the basis for WTO Members' decision on whether to admit China to the WTO. The package is then sent forward to the WTO General Council for final approval. The protocol package reflects the best market access commitments from each bilateral agreement.

Accession to Reduce Ag Trade Barriers

Under terms of the U.S.-China bilateral agreement, which will be incorporated into the final WTO accession protocol, China has committed to eliminate nontariff barriers on agricultural imports upon its accession to the WTO and to implement a series of tariff cuts between 2000 and 2004. In addition, China committed to establish tariff-rate-quotas (TRQ's) for wheat, rice, corn, cotton, and soybean oil with gradually increasing quota levels, mostly over the same period.

For goods subject to a TRQ, a specified quantity of imports—i.e., quota—may enter at a low tariff rate, and additional imports are assessed a higher tariff. The negotiated TRQ's are not "minimum purchase" commitments—i.e., they do not require China to actually import at the full TRQ amount. Rather, by cutting tariffs, they provide the opportunity for trade to the extent that domestic demand exceeds supply.

WTO accession is expected to expand China's imports of farm products, particularly for major agricultural commodities which have TRQ's. An important element in China's increased imports will be the growing shares of TRQ imports reserved for private traders.

China's commitments to reduce barriers to agricultural imports include the following:

- A system of TRQ's will expand market opportunities for major agricultural commodities, including corn, wheat, cotton, rice, and soybean oil. The quantities of these commodities allowed in at the low "within-quota" tariff rate will increase annually from 2000 through 2004 (except soybean oil which will be fully liberalized with nothing but a bound duty by 2006).

The projections and discussion in this article draw on USDA agricultural Baseline projections released at USDA's 2000 Agricultural Outlook Forum in February. The longrun Baseline projections, through 2009, assume no shocks (and no WTO accession by China) and are based on specific assumptions regarding macroeconomic conditions, policy, weather, and international developments.

China's Accession to WTO Would Boost Its Imports of Major Ag Commodities From Projected Levels

	2005			2000-09 average		
	Baseline	WTO scenario	Change	Baseline	WTO scenario	Change
			$ million			
Value of China's net imports						
Corn	-422	165	587	-426	71	497
Wheat	231	773	543	243	727	484
Rice	-846	-868	-23	-828	-843	-15
Soybeans	1,470	1,081	-389	1,422	1,024	-398
Soymeal	280	526	246	281	501	221
Soyoil	453	776	323	455	803	348
Soy complex	2,202	2,382	180	2,157	2,328	171
Cotton	565	924	359	429	757	328
Sum of above	1,730	3,376	1,646	1,576	3,040	1,464
Value of China's imports						
Corn	121	780	659	127	680	554
Wheat	309	853	544	319	803	485
Rice	175	216	41	173	210	37
Soybeans	1,511	1,116	-394	1,461	1,059	-402
Soymeal	281	527	245	282	502	220
Soyoil	470	797	327	472	824	352
Soy complex	2,262	2,440	178	2,215	2,385	170
Cotton	677	1,206	529	558	1,019	461
Sum of above	3,544	5,495	1,951	3,392	5,,098	1,706

Marketing-year trade. Totals may not add due to rounding. Change measured from USDA Baseline projections released February 24, 2000.

Economic Research Service, USDA.

- Significant cuts in tariffs will be completed by January 2004. For agricultural products overall, tariffs will drop from an average of 22 percent to 17.5. For certain agricultural exports deemed important to the U.S. (e.g., animal products, fruits, and dairy products), the average tariff will fall from 31 to 14 percent.
- A growing share of the rising TRQ imports is reserved for nonstate trading entities to encourage private-sector participation in China's trade activities.
- Use of export subsidies for farm products will end, and trade-distorting domestic subsidies will be capped and reduced.
- Sanitary and phytosanitary (SPS) barriers must be based on scientific evidence.

In analyzing the likely changes in China's and in U.S. trade in major agricultural commodities arising from China's accession to the WTO, ERS used the global Country Linked System of models (see box on page 15). ERS measured the estimated trade level under China's accession, relative to USDA's 2000 Baseline projection—a 10-year projection of international supply, demand, and trade of major agricultural commodities. Since Baseline projections were built on existing patterns of trade and assumed China was not a WTO Member, the difference between the two levels reflects the likely impacts of China's accession to the WTO.

The commodities analyzed for impacts on China's agricultural trade were corn, wheat, rice, cotton, and soybeans and their products, while a broader set of commodities was considered for the U.S. trade and farm income impacts. Although China's imports of poultry, pork, and beef are expected to increase following WTO accession, China's livestock product trade was not analyzed. However, China's domestic feed costs do impact its domestic supply and demand for livestock products.

Some of the key assumptions underlying the analysis include:

- general economic and policy assumptions as in the 2000 USDA Baseline;
- no economic growth impact on China from WTO accession (i.e., maintains 7.4 percent average annual growth as under baseline projections);
- reduction in China's large agricultural commodity stocks in the near term;
- relaxation of China's government policy favoring soybean imports over soy oil or soy meal imports; and
- treatment of China's accession to the WTO as equivalent to implementing the bilateral agreement.

The final level and timing of China's import growth due to WTO accession depends on factors that are difficult to anticipate and gauge. These include how rapidly and how extensively China's government adjusts its domestic agricultural production, pricing and marketing policies, and institutions in response to the more liberalized trade environment.

China's Ag Imports Should Rise

Between 2000 and 2009, China's average annual net imports of major agricultural commodities (corn, wheat, rice, cotton, soybeans and their products) are expected to increase $1.5 billion from Baseline levels due to WTO accession. By the midpoint of the projection period (2005), the net gains in import value are expected to be $1.6 billion, almost double the Baseline level.

Corn. China committed to establish a 4.5-million-ton tariff-rate quota for corn in 2000, rising to 7.2 million by 2004. Within-quota imports would be subject to a low duty (1 percent), while over-quota duties would be high—77 percent in 2000 dropping to 65 percent by 2004. Nonstate trade companies with the right to trade would be allocated 25 percent of the quota in 2000, rising gradually to 40 percent in the year 2004.

China's accession to the WTO is projected to result in an average annual increase of $497 million over the Baseline in its net corn trade between 2000 and 2009. During this period, the Baseline projects China will be a net corn *exporter* of $426 million on an annual average basis. In sharp contrast, the WTO scenario projects annual average net corn *imports* by China amounting to $71 million.

China is currently a large corn exporter, and imported an average of less than half a million tons of corn annually over the last 3 years. China's imports are not projected to reach the full TRQ amount by the end of the projection period (2009) because the expected declines in price and production are not likely to be rapid or dramatic. Imports are nonetheless expected to increase steadily because of the TRQ provision that creates effective market access opportunities for nonstate trade companies in corn imports and because of the demand that already exists.

Increased corn imports following WTO accession should put downward pressure on domestic prices and production in China. This downward pressure reinforces China's recent move to align prices more closely with the world market by reducing the floor (or protection) price paid to farmers for government purchases of corn. It is unclear, however, whether this downward price pressure will contribute to additional changes in production, consumption, and stockholding, and this generates substantial uncertainty regarding the pace of the expected longrun upward trend in imports.

The most likely outcome is reduced area planted to corn, reduced production, increased consumption, and higher levels of imports. South China is expected to be the destination for much of these additional imports, given the large demand for livestock feed in that region. North China should continue to procure supplies primarily from local domestic production. However, if production in North China does not drop dramatically in response to the expected lower prices, China may maintain significant levels of exports to neighboring Asian countries. Although such exports could displace U.S. shipments, the U.S. is expected to capture the majority of China's additional trade, and those gains are likely to more than make up for any losses in third-country exports.

Wheat. China committed to a tariff-rate quota of 7.3 million tons for wheat in 2000, rising to 9.64 million in 2004. The duty for within-quota imports would be 1 percent, while the over-quota duty would be 77 percent in 2000, dropping to 65 percent by 2004. Nonstate trade companies with the right to trade would be allocated 10 percent of the TRQ.

China's accession to the WTO is projected to result in an average annual increase over the Baseline of $484 million in net wheat imports between 2000 and 2009. The Baseline projects annual average net imports of $243 million by China during this period, compared with an annual average of $727 million in net wheat imports in the WTO scenario.

China has imported less than 2 million tons of wheat each year over the last 3 years, and stocks are relatively high. Nevertheless, imports are expected to increase under WTO accession because of demand for high-protein-content wheat in urban areas and a decrease in trade barriers for the previously banned U.S. Pacific Northwest soft white wheat.

While stock adjustments could delay rising imports, even relatively modest changes in production and consumption would quickly drive imports above previously expected Baseline levels. China is expected to surpass Baseline wheat import levels almost immediately upon WTO accession.

Recent changes in government procurement policy lowered wheat protection prices and initiated a phasing out of government purchases of low-quality wheat. This is expected to reduce marginal areas planted to winter wheat in northwest China and the region south of the Yangtze River, and spring wheat areas in northeast China. Lower prices will reduce wheat production overall, may modestly increase consumption and, in turn, foster higher levels of imports. South China is the likely destination for much of the additional imports needed to meet the demand for wheat (for noodles, cakes, biscuits and pastries). North China should continue to be supplied primarily by domestic production, though it too relies on imported wheat for blending purposes.

Rice. China committed to a tariff-rate quota of 2.66 million tons for rice in 2000, rising to 5.32 million in 2004. Within-quota and over-quota tariff rates

China's WTO Accession Effort: A Chronology

1986

People's Republic of China applies to join GATT (General Agreement on Tariffs and Trade).

1994

China begins a new push to join GATT.

1995

World Trade Organization (WTO) created to replace GATT as an institutional framework for overseeing trade negotiations and adjudicating trade disputes.

1995-97

China cuts import duties on many goods, but maintains high tariffs on others, particularly agriculture products.

1999

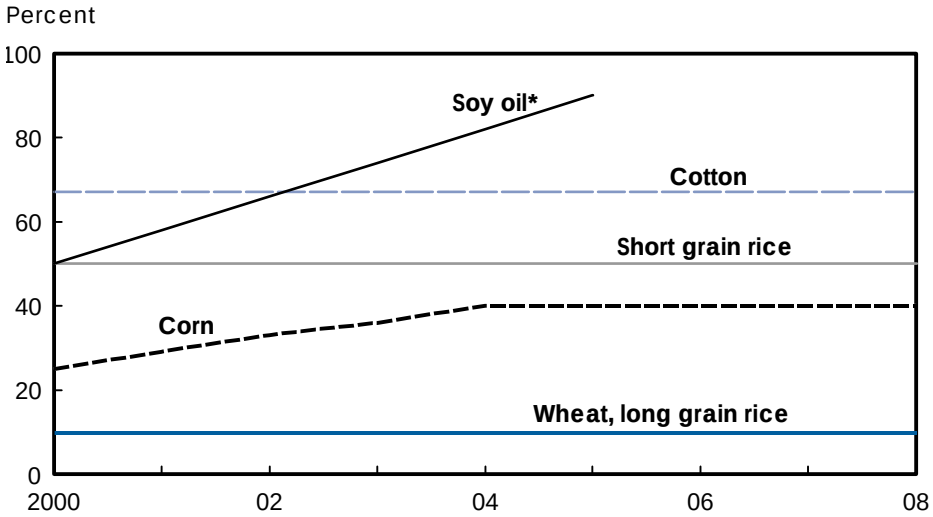
April 8. China offers major trade concessions in negotiations with the U.S., but differences over key issues remain. The two countries issue a statement committing to finish negotiations in 1999.

November 15. U.S.-China negotiators agree on a bilateral market access deal, moving China a step closer to joining the WTO.

2000

China continues bilateral negotiations with other interested WTO Members (the European Union and Argentina, among others).

Reserving Share of TRQ for Nonstate Traders Would Dilute China's State Trading Monopoly



Required nonstate share under terms of the U.S.-China bilateral WTO accession agreement.
TRQ =Tariff-rate quota.
*Soy oil TRQ would be eliminated by 2006 and converted to a low tariff-only regime.
Economic Research Service, USDA

are the same as for corn and wheat. Half the quota would be reserved for medium/short grain (japonica) rice; the remainder would be for long grain (typically indica) rice. (For a discussion of rice types, see *AO* December 1999.) Nonstate trade companies with the right to trade would be allocated 50 percent of the quota for japonica imports and 10 percent of the indica quota.

China is a large net exporter and would remain so upon WTO accession. Compared with the Baseline, China's net annual average rice exports are expected to increase by $15 million between 2000 and 2009 due to WTO accession. However, because of the cap on domestic subsidies, China's internal prices could drop, reducing rice production as well as exports to third-country markets.

Although the share of the TRQ quota for *japonica* rice is 1.3 million tons rising to 2.6 million, China is not likely to import material quantities of japonica rice in the near future. China currently imports *indica* rice almost exclusively, mainly premium Thai jasmine for high-income urban consumers. There is little likelihood that China's WTO accession would prompt a large increase in its indica rice imports.

Cotton. China committed to a tariff-rate quota of 743,000 tons for cotton in 2000, increasing to 894,000 in 2004. The within-quota import duty would be 1 percent, and the over-quota duty would decline from 69 percent in 2000 to 40 percent by 2004. Nonstate trade companies with the right to trade would be allocated 67 percent of each year's quota.

China's accession to the WTO is projected to result in an average annual increase over the Baseline of $328 million in net cotton imports between 2000 and 2009. The Baseline projects annual average net imports of $429 million by China during this period, compared with an annual average of $757 million in net cotton imports in the WTO scenario.

China began liberalizing its domestic cotton marketing channels and prices in September 1999, and WTO accession will extend liberalization to cotton trade. Because China's domestic prices were fixed until recently at levels set during a period of near-record-high world prices, effective price reform could be expected to lower domestic prices and production and raise consumption, and China's textile exports to developed countries would be greater with accession to the WTO, further increasing cotton consumption. Under the Uruguay Round Agreement, the developed-country import quotas for textiles and apparel, created through the Multifiber Arrangement (MFA), are scheduled for elimination by 2005 for all WTO Members (although the U.S. would have recourse to two new product-specific safeguards to protect against any surge of imports). Without WTO membership, China would continue to face bilaterally negotiated quotas in its major export markets.

With prices and production lower and consumption higher, relaxation of import barriers would increase cotton imports. The key unknown in this scenario is the size and expected utilization of China's cotton stocks. Policy changes that support a drawdown of stocks could delay the onset of increased imports.

A rapid clearing of stocks during the very early period of implementation means imports would be lower than would otherwise be the case. This suggests further that exports could be larger than USDA projections for the period. However, the likelihood and duration of such a situation is extremely difficult to gauge because data on the size and usable share of China's stocks are considered a state secret.

Soy oil, soy meal, and soybeans. China committed to a tariff-rate quota of 1.72 million tons for *soy oil* in 2000, rising to 3.26 million in 2005. Within-quota imports would be subject to a low duty (9 percent), while over-quota duties would be assessed at 74 percent in 2000, falling to 9 percent in 2006. Nonstate trade companies with the right to trade would be allocated 50 percent of the TRQ in 2000, rising to 90 percent in the year 2005. The TRQ system for soy oil would be eliminated by 2006 and converted to a bound 9-percent tariff rate.

China's accession to the WTO is projected to result in an average annual increase over the Baseline of $348 million in net soy oil imports between 2000 and 2009. The Baseline projects annual average net imports of $455 million by China during this period, compared with an annual average of $803 million in net soy oil imports in the WTO scenario.

China is expected to import growing amounts of over-quota soy oil as the over-quota duty declines, and imports will see strong growth after the soy oil TRQ system is eliminated after 2005. Palm and rapeseed oil are potential competing products for soy oil. But continued strong demand for soy oil for home consumption and for use in some specific processed food items limits to some extent the potential substitution for soy oil imports.

In addition to the soy oil TRQ, China is also binding import tariffs for *soybeans* (3 percent) and *soy meal* (5 percent) and allowing unrestricted trade by all nonstate companies with the right to trade. China's accession to the WTO is projected to result in an average annual increase in soy meal imports of $221 million over the Baseline between 2000 and 2009. The Baseline projection is for annual average net imports of $281 million by China during this period, compared with an annual average of $501 million in net soy meal imports in the WTO scenario.

China's annual average soybean imports under WTO accession are projected to be $398 million lower than the Baseline projection, in response to a change in the current trade policy that favors bean imports over imports of oil and meal. With liberalized trade in meal and oil, inefficiencies of the domestic crushing industry will reduce the competitiveness of soybean products relative to direct imports. Therefore, soybean product imports are expected to increase to meet rising demand for soy meal for livestock feed and soy oil for the food processing industry and for cooking. The result will be lower domestic soy oil and soy meal prices. Due to a reduction in soybean imports relative to the Baseline, the net gain in average annual soy complex imports (soybeans, soy oil, and soy meal) due to WTO accession is expected to be a relatively modest $171 million over the projection period.

U.S. Farm Income Should Rise

Accession of China to the WTO would increase the volume of global U.S. exports of most major field crops over Baseline levels. Higher foreign demand for field crops and related products would lead to an increase in U.S. major field crop prices, which would boost farm income. Average price increases for corn, wheat, upland cotton, and soybeans would be 1.5 to 4.5 percent above Baseline levels over the 2000-09 period.

China is expected to increase its imports of processed soybean products (oil and meal), while decreasing its imports of unprocessed beans. U.S. soybean exports would decline by about 6 percent, on average, over the 2000-09 period. However, exports of soybean oil and meal would show a concurrent average increase of 23 and 12 percent, respectively. Increased demand for soybean products would increase demand for soybeans used to produce them and increase the soybean price.

Higher crop prices would raise feed prices in the U.S. livestock industry. As a result, profitability of livestock production would decline, and producers would reduce production. This would reduce supply and increase both farm and retail prices. Farm prices for steers, hogs, and broilers would increase, on average, from 0.5 to 2.5 percent above Baseline levels over the 2000-09 period.

Increased U.S. export volumes coupled with higher commodity prices would raise the value of global U.S. exports of major field crops in 2005 by $1.6 billion, or 2.6 percent, over the Baseline projection. Most of this increase would be associated with the export of bulk commodities. Additional gains would result from significantly reduced tariffs for other products

Behind the Numbers—the Country Linked System

The China WTO analysis uses the Country Linked System of models (CLS), developed at USDA's Economic Research Service. The system contains 42 foreign country and regional models, and the Food and Agricultural Policy Simulator (Fapsim) model of U.S. agriculture. The country models account for policies and institutional behavior, such as tariffs, subsidies, and trade restrictions. A rest-of-world model handles any missing country/commodity coverage. In general, production, consumption, imports, and exports in the models depend on world prices (determined by the system), on macroeconomic projections (determined outside the system), and on domestic and trade policies (determined inside or outside the models). The CLS is large, containing about 18,000 equations per year of projection, and incorporates an extensive amount of USDA country and commodity analysts' expertise.

The China model used in this analysis incorporates behavior of state trading enterprises (STE's) into import and export equations for each commodity. World price signals enter the domestic market only to the extent that these STE's respond. China's domestic prices adjust until suppliers make available just as much as users will want to buy. Analysts' judgement addresses the institutional and behavioral changes that are expected to accompany WTO accession (e.g., liberalization of agricultural markets and allowing private importing firms in China). In the WTO scenario, liberalization of agricultural trade was introduced into the China model by increasing China's likelihood of purchasing imports (i.e., shifting the intercepts of the import equations).

Fapsim is an annual econometric model of U.S. agriculture whose structure reflects economic theory and institutional knowledge of the sector. The model contains over 700 equations that describe supply, use, prices, and policies, such as commodity loan rates and marketing loans.

The system reaches simultaneous equilibrium in prices and quantities for 24 world commodity markets, for each of 12 projected years in this analysis. The 24 commodity markets include coarse grains (corn, sorghum, barley, and other coarse grains); food grains (wheat and rice); soybeans, rapeseed, sunseed, and other oilseeds (and their corresponding meals and oils); other crops (cotton and sugar); and animal products (beef and veal, pork, poultry, and eggs).

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World Agriculture & Trade

China's Accession To WTO Would Boost U.S. Ag Exports and Farm Income From Projected Levels

	Baseline		Change from Baseline with China's accession	
	2005	2000-09 average	2005	2000-09 average
	$ billion			
Value of U.S agricultural exports				
Grains and feeds	19.4	18.9	1.0	0.9
Oilseeds and products	10.7	10.5	0.1	0.1
Cotton and linters	2.6	2.6	0.5	0.4
Other	30.7	30.2	0.1	0.1
Total	63.5	62.2	1.6	1.5
U.S. farm income				
Cash receipts from marketings				
Crops	115.5	113.9	1.8	1.5
Livestock	105.9	104.9	1.4	1.2
Farm production expenses	212.1	210.3	1.5	1.2
Direct Government payments to farmers	6.1	7.9	0.0	-0.3
Other adjustments to farm income	28.5	28.2	0.0	0.0
Net farm income	43.9	44.6	1.7	1.1
		1982-84=100		
U.S. Consumer Price Index for all food	185.8	184.3	0.5	0.4

Fiscal year exports; calendar year for other indicators. Excludes exports of high-value products such as poultry, pork, beef, fruits, vegetables, tree nuts, and forestry products. Change measured from USDA Baseline projections released February 24, 2000.

Economic Research Service, USDA

excluded from this analysis, including poultry, pork, beef, citrus, other fruits, vegetables, tree nuts, and forest and fish products.

Net farm income for the sector, taking into account reduced government outlays, would increase in 2005 by $1.7 billion, or 3.9 percent, over the Baseline projection. Higher crop prices together with higher product demand would increase cash receipts from farm marketings of crops by $1.8 billion over the Baseline in 2005. Cash receipts from farm marketings of livestock products would be $1.4 billion over the Baseline, due to higher livestock prices. Total farm production expenses would be $1.5 billion above the Baseline, due primarily to higher feed costs.

Over the 2005-09 period, the increase in total cash receipts is partially offset by reduced government payments. The government currently offers a marketing loan program for most major field crops. This program is designed to offer income protection to producers when crop prices are low by filling the gap between the announced program loan rate for the crop, and the market price. The Baseline projects that these loan deficiency payments (LDP's) will be paid to eligible producers over the 2000-06 period. An increase in farm prices would reduce payouts of LDP's. Price increases would put annual LDP's $0.3 billion below the Baseline, on average, over the 2000-09 period.

With higher prices for agricultural products, especially livestock products, retail food prices would rise very slightly above Baseline levels. **AO**

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