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China's Growing Participation in Agricultural Markets: Conflicting Signals

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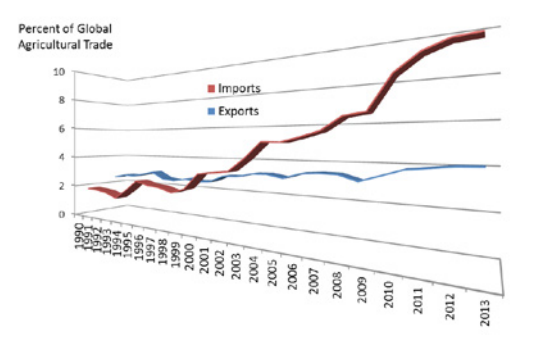
China's imports of agricultural products are growing. Rising living standards and urbanization are creating new demands for food, while environmental and resource constraints limit growth in domestic production. Imports are outpacing agricultural exports, and China is becoming a larger net importer of farm products.

With abundant natural resources and efficient farmers, the United States is the leading supplier of many of China's major agricultural imports. The United States accounted for over 24% of China's agricultural imports by value during 2012-2013 (Gale, Hansen, and Jewison, 2015). U.S. agricultural exports to China grew from $1.9 billion during 2001—the year of China's WTO accession—to $26 billion in 2013. China was the 7th largest market for U.S. agricultural exports in 2001 and is now the top overseas market for U.S. food and fiber. The share of U.S. agricultural exports going to China rose from 2-to-3% during the 1990s to 18% now.

While China's growth creates new potential markets for U.S. agricultural products, it also creates new uncertainty and tensions. As China becomes a bigger customer for U.S. agricultural products, disputes seem to multiply:

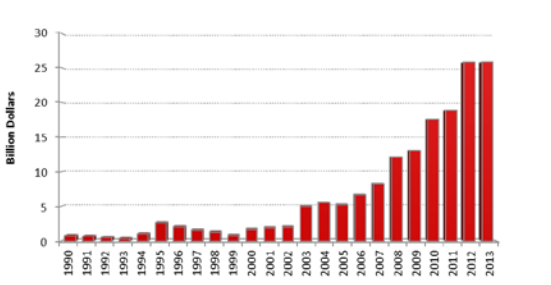
- China was expected to import record volumes of corn during 2013-2014, but shipments dwindled as Chinese authorities rejected over 1.4 million metric tons (mmt) containing an unapproved genetically modified organism (GMO).

Figure 1: China's Share of Global Agricultural Trade, 1990-2013



Source: Analysis of data from World Trade Organization.

Figure 2: U.S. Agricultural Exports to China, 1990-2013



Source: U.S. Department of Agriculture, Global Agricultural Trade System.

- China's imports of distillers' grains, sorghum, and barley soared as Chinese feed mills sought cheaper alternatives to domestic corn. Chinese inspection and quarantine officials announced greater scrutiny of these commodities later in 2014.
- During 2014, Chinese officials began rejecting imports of genetically modified alfalfa.
- Chinese authorities announced suspension of a "sliding scale" augmentation of the cotton import quota during 2015. This is a move that will curb cotton imports.
- Tariff rate quotas (TRQ) for grain were distributed only to potential importers who purchased domestic grain from state reserves during 2015.
- Chinese authorities now require exporters to certify that pork is free of ractopamine (a feed additive banned in China). China banned a number of U.S. pork exporters after detecting ractopamine in their shipments during 2014.
- U.S. beef has not regained access to China's market after being banned over disease concerns in 2003.
- Chinese authorities were slow to comply with a World Trade Organization (WTO) ruling against procedures used to set antidumping and countervailing duties on U.S. chicken.

More Trade, But Controlled Trade

China is sending conflicting signals about its engagement in agricultural markets. There are signs that Chinese officials are moving toward a greater participation in agricultural trade. At the same time, officials also appear determined to exert tight control over imports.

When China joined the WTO in 2001, it committed to relatively low agricultural tariffs, elimination of import quotas for most commodities, science-based standards for imported commodities, and limits on domestic support programs. Chinese leaders say WTO accession was beneficial for agriculture, since it opened the sector to outside investment and technology, boosted agricultural exports, helped alleviate rural underemployment, and renewed momentum on market reforms (Han, 2011; Niu, 2011). Officials endorse participation in multilateral trade organizations like WTO where they hope to promote the interests of China and other developing countries (Agricultural Trade Promotion Center, 2014; Caixin Net, 2015). China has negotiated free trade agreements with a number of agricultural exporters, including U.S. competitors like Australia and New Zealand, which will cut tariffs on imports of dairy, beef, and sorghum from those countries. Some measures, like a cut in tariffs on pistachios and almonds in 2015, reflect consumer demand for new products that are not widely produced in China. President Xi Jinping's farm visits and discussions of agriculture in trips abroad are described by official media as a "farm diplomacy" strategy that reflects his endorsement of international cooperation in agriculture (*Peoples Daily*, 2014). Speeches and articles by agricultural officials endorse a "two markets, two kinds of resources" strategy that advocates meeting China's growing demand for food with both domestic and international commodities. A reflection of the increasing role of trade is the inclusion of agricultural trade and foreign investment policy recommendations in the communist party's annual "Number one documents" during 2014-2015.

China's commitment to free trade in agricultural markets is tempered by perceived threats to food security and domestic stability. A new food security strategy introduced in 2013 acknowledges a necessary role for imported commodities in China's food supply, but it also calls for ensuring that domestic supplies retain a dominant role while imports are limited to a supplementary role (Han, 2012; Han, 2014; Han and Jin, 2014). Officials worry that imports and foreign investment threaten the development of domestic industries and reduce the government's ability to control production and prices (Niu, 2011). Moreover, officials are concerned that agricultural imports could restrain rural income growth and spread discontent in the countryside. Ancillary objectives—all represented in the 2014 "Number one document"—include diversifying import sources, stabilizing domestic prices, and ensuring "industry security", that neither imports nor foreign companies undermine the dominant position of Chinese producers and processors in any particular sub-sector.

With so many objectives, Chinese officials frequently see reasons to intervene in markets. Most of the intervention is in the domestic market through buying and selling commodity reserves and by subsidizing production, transportation, storage, and processing of commodities. China's Minister of Agriculture cited policy support as the most important factor contributing to eleven straight increases in grain production from 2004 to 2014 (Han, 2014). Officials reported that "policy purchases" equaled about 20% of the 2014 grain harvest. More than half of China's cotton is produced with subsidies in the northwest region and requires additional transportation subsidies for the long journey to textile mills in eastern provinces (MacDonald, Gale, and Hansen, 2015). Similar transportation subsidies were given for corn produced in northeastern provinces during 2013, and starch and alcohol processors were given subsidies for each ton of domestic corn they processed during 2014.

Interventions at the border can vary with market conditions. The Minister of Agriculture advised

officials to "keep a good grip on the volume and timing of imports to prevent large concentrated imports of any commodity from pressuring domestic production or having unfavorable impacts on farmers' incomes" (Han, 2014). Similar language about regulating the flow of imports to stabilize domestic markets has appeared in documents since the 1990s and was included in the 2014 and 2015 "Number one documents." Interventions to slow imports include the withdrawal of "sliding scale" cotton import quotas and tighter control over distribution of grain TRQs. Increased attention to inspections and enforcement of bans on feed additives and genetically modified crops tend to occur during periods of excess supply in the Chinese market.

Suspicions that inspection and quarantine measures are manipulated to manage the flow of trade are supported by official documents that endorse such practices.

- A pork industry stabilization policy introduced in 2009 included "adjustment of imports and exports" as a measure for adjusting supply to stabilize prices (National Development and Reform Commission, 2009).
- A Ministry of Agriculture article recommended regulating the flow of imports by using the approval process for genetically modified organisms (Xi and Li, 2013).
- Local news media revealed that a municipal office distributes TRQ to companies based on its assessment of global market conditions (*Weihai Evening News*, 2014).
- A document instructing inspection and quarantine officials to scrutinize imported sorghum and barley for a wide variety of potential disease and contamination problems was interpreted by many market participants as a measure to curb imports (AQSIQ, 2014; Niu and Patton, 2014).

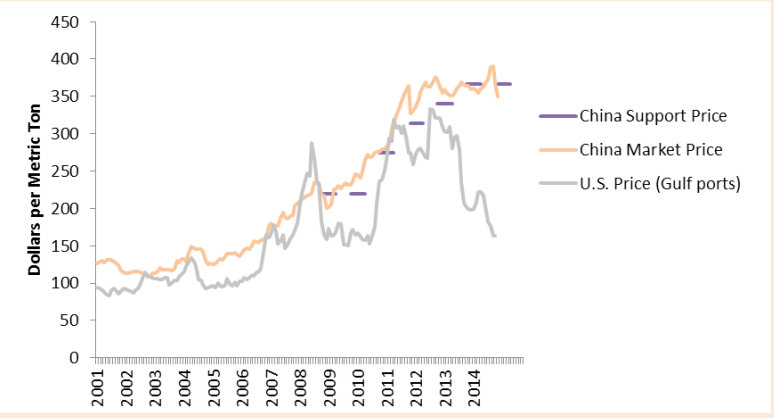
Domestic Intervention Raises Trade Tensions

China's rising level of domestic support for agriculture has raised trade tensions. Chinese officials are pursuing numerous intervention programs modeled on policies used by countries in North America and Europe during the last century. And like those 20th century programs, China's interventions have led to confusion and disruptions in international markets.

When China joined the WTO, its domestic support for farmers was minimal. A package of small subsidies and tax cuts introduced during 2004-2006 was popular with farmers, but the benefits were eroded by rising production costs. After 2008, authorities began to raise price supports annually to maintain production incentives and rural income growth (Gale, 2013). Now China's farm prices exceed global prices for nearly all major commodities, and authorities have accumulated large stockpiles of cotton, grains, edible oil, and sugar.

- China's cotton price-support program distorted global cotton markets (MacDonald, Gale, and Hansen, 2015). U.S. Department of Agriculture "production, supply and distribution" estimates indicate that China's cotton inventories increased by 52 million bales from 2011 to 2014, as domestic cotton was purchased at a high support price. Over the same period, Chinese textile manufacturers imported a cumulative total of 59 million bales of cheaper cotton from the international market. Global prices and demand for cotton began to plunge after China ended the price support program and began to dispose of its cotton stockpile.
- During 2014, China imported 19 mmt of cereal grains, suggesting that the country had a deficit, yet China actually had a surplus of grain. Chinese authorities reported purchasing 124 mmt of domestic grain to support prices that year.
- During 2012, central and local officials launched an initiative to subsidize early-season rice seedling suppliers and mechanized transplanting services to prevent a decline in double-cropping of rice. The following year, authorities reported purchasing 5.7 mmt of early-season rice—about one-sixth of the crop—to support

Figure 3: China and U.S. Corn Prices, 2001-2014



Note: China prices converted to U.S. dollars at the official exchange rate.

Source: China National Development and Reform Commission, China National Grain and Oils Information Center, and U.S. Department of Agriculture.

prices. The high price encouraged rice mills to use cheaper imported rice, and China became the world's top rice importer.

- China imported at least 3.5 mmt of corn to replenish reserves during calendar years 2011-2012, creating an impression that China's corn reserves were nearly exhausted. Yet, China's corn reserves swelled beyond storage capacity by 2014. That year, officials held an auction to sell the U.S. corn they held in reserves for three years.
- In 2009, China introduced a program to stabilize the hog market by stockpiling frozen pork and subsidizing sows in order to prevent cyclical fluctuations in production and prices. Cycles nevertheless continued. Ministry of Agriculture data reported that sow inventories dropped 13% during 2014 after a sustained expansion during 2011-2012. The pork program could not alleviate depressed hog prices during 2014, and some industry reports even said freezers were already filled with carcasses.

China's commitment to free trade in agriculture may be tested as officials find themselves hemmed in by downward pressure on domestic prices, excessive stockpiles, and relatively low barriers to imports. In 2015, Chinese officials say their policy support for agriculture faces "two ceilings and one floor" (*Economic Daily*, 2015). The "floor" is rising production costs which reduce net margins for producers. Domestic prices cannot be raised further above the "ceiling" of international prices—support prices were held steady during 2014, after five years of increases. Soybean and cotton price supports were abandoned, and authorities are experimenting with direct subsidies for these commodities to replace price supports. This policy change is constrained by a second "ceiling": officials say the country's farm subsidies have already reached the 8.5% limit on "amber box" measures prescribed by WTO commitments. As of 2014, China had only notified its domestic support to WTO through 2008, but support has increased rapidly since then (Gale, 2013).

Prepare For Multiple Future Scenarios

Chinese officials say that they take their WTO commitments seriously and aspire to influence the rules for international trade through participation in such international organizations (Niu, 2011; Caixin Net, 2015). They designed their domestic support policies to conform to WTO requirements, and Chinese authorities have refused some demands from soybean, sugar, and distilling industries for antidumping and countervailing duties. However, practices like tight controls over TRQ distribution, opaque and lengthy approval processes for genetically modified crops, and uneven application of inspection and quarantine regulations seem to skirt the rules and add uncertainty to trade. China's future paths for domestic support, food safety regulation, and its approach to producing and importing genetically modified crops are also uncertain.

China's engagement with the global market is related to a wide range of domestic institutional reforms now underway to reduce barriers to rural-urban migration, improve banking services for agriculture, promote rural land markets, and strengthen mechanisms for innovation in agricultural science and technology. The need for such reforms has been recognized for many years (Lohmar et al., 2009), and the decision to finally move forward on such reforms appears to have been spurred by food security concerns and eroding international competitiveness. Chinese officials say new initiatives to increase the scale of farms are intended to raise productivity in order to improve the competitiveness of farms (Caixin Net, 2015). The reform push suggests that Chinese leaders do not intend to shelter uncompetitive small-scale farms behind a barrier of protection as several other East Asian countries have done (Otsuka, 2013).

China is pursuing free trade agreements and encouraging outbound investment in agricultural processing, logistics, and farming to secure supply chains for imported commodities. The outcome of these initiatives and their impacts are all uncertain. Moreover, a financial crisis or the onset of deflation could reverse the rapid growth in rural wages, land rents, and nominal currency appreciation that contributed to rapid growth in Chinese commodity prices in recent years. Just as an unanticipated decline in global agricultural prices created China's "two ceilings and one floor" quandary, a rebound in global prices could improve China's competitive position.

Farmers and leaders in business and government worldwide are trying to anticipate China's future role in agricultural trade. While extrapolating past trends is the easiest way to forecast the future, observers should prepare for a variety of possible scenarios. China is in a critical period where extrapolation of past trends may no longer be valid. China's agricultural imports could continue growing (or even accelerate) if economic growth is sustained and officials reduce their intervention. Conversely, permanently slower economic growth or reversal of reforms could slow agricultural imports. Therefore, monitoring production, consumption, trade, and policy in China may be more important than ever.

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