

SECTION 4: CHINA'S AGRICULTURE POLICY, FOOD REGULATION, AND THE U.S.-CHINA AGRICULTURE TRADE

Introduction

China's World Trade Organization (WTO) accession in 2001 was a watershed event for U.S. agriculture. China is now the primary export market for U.S. agriculture products.¹ While the United States ran a \$315 billion trade deficit in goods with China in 2012, it achieved a \$21 billion surplus in agriculture.² Since full implementation of the WTO accession in 2005, China's agriculture imports from the United States have risen by an average of \$2.5 billion each year, exceeding the U.S. Department of Agriculture's (USDA) initial estimate of \$2 billion.³

A prime beneficiary of this farm trade boom is Iowa, one of the nation's largest agricultural states.⁴ Twenty years ago, China and Taiwan accounted for 6 percent of Iowa's agricultural exports. By 2012, they accounted for over 20 percent. That has helped sales of Iowa's agricultural products triple to \$30 billion in just a decade.⁵ Iowa farm real estate is now worth three times the national average.⁶ Moreover, Iowa has enhanced the U.S.'s agriculture diplomacy with China. Iowa officials claim a "special relationship" with China's new president, Xi Jinping, who spent time in the state as a young official.⁷ U.S. Agriculture Secretary Tom Vilsack in February 2012 hosted Mr. Xi and Agriculture Minister Han Changfu at the first U.S.-China Agricultural Symposium in Des Moines. The two countries signed the first U.S.-China Plan of Strategic Cooperation in Agriculture (2012–2017).⁸ Weeks after the symposium, the USDA led the largest ever agricultural trade mission to the Mainland.⁹

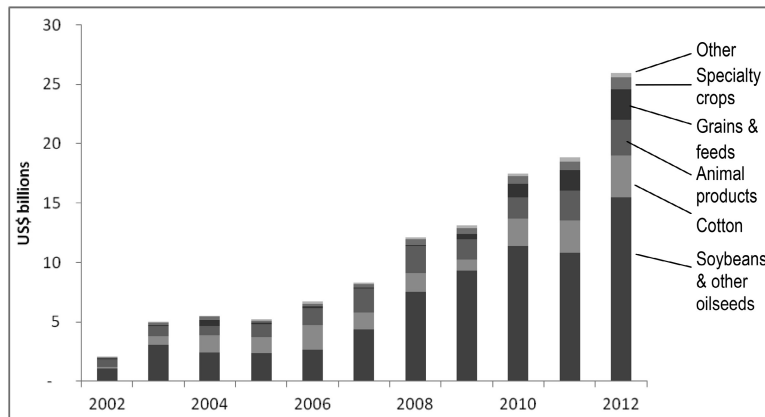
The Commission consequently chose Iowa State University in Ames as the location for an April hearing on China's agriculture policy and the U.S.-China trade in agriculture products. Among the witnesses was Iowa Secretary of Agriculture William Northey. The Commissioners also traveled to China in July to meet with Chinese officials, researchers, and producers as well as U.S. food companies. These activities complemented the Commission's 2008 hearing in New Orleans, which examined the economic and safety impacts of China's seafood exports to the United States.¹⁰

The hearing and trip illustrated the potential for deepening U.S.-China agriculture ties. China must feed a fifth of the world's population with less than a tenth of its arable land and potable water.¹¹ As China transforms into an urban society with a growing middle class, per capita food consumption is rising and, with it, the demand for higher-protein diets—a demand that U.S. farmers are well positioned to fill. China also seeks to make its farmers more

productive, and U.S. agencies, companies, and universities are helping China to do that. The United States, with its distinct advantages in resources, productivity, and quality, should benefit from a free market in farm goods.

However, the Commission takes note of serious problems in the bilateral relationship. These problems are detailed in this section. Many in the U.S. agriculture industry lobbied Congress in 2000 to grant China permanent normal trade relations, because they expected China to become a major purchaser of U.S. food products once it joined the WTO.* But yesterday's farm belt advocates have been disappointed that China has concentrated its purchases on bulk commodities, such as soybeans used as animal feed for China's outsized livestock industry (see figures 1 and 2). China's agriculture policy favors domestic production, even when it is unsustainable and nonessential to food security. In trade, China has used nontariff barriers to restrict imports of higher value-added products from the United States. Of particular concern are antidumping duties on U.S. broiler chickens; a ban on U.S. beef; and zero tolerance for even the small amounts of growth-inducing chemicals used in U.S. pork feed lots. For the bulk goods that China does import, such as soybeans, cotton, and corn, value-added processing largely takes place in China, costing the United States opportunities to create new jobs.

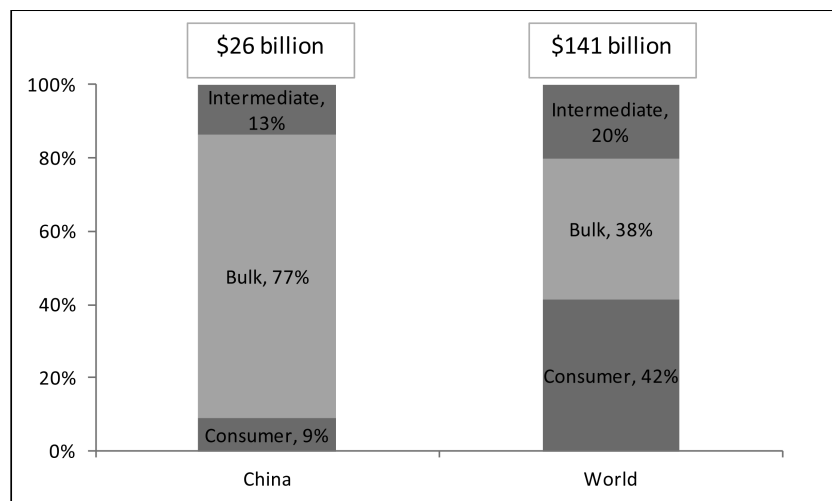
Figure 1: Value and Composition of U.S. Agricultural Exports to China, 2002–2012
US\$ billions



Source: USDA (Washington, DC: Foreign Agricultural Service, 2013).

* Granting China permanent normal trade relations, also known as Most Favored Nation status, was a precursor to China's admission to the WTO the following year. President Bill Clinton also pushed for permanent normal trade relations as a way to widen access for U.S. agricultural exports to China. The White House, "Clinton Says U.S. Has Key Role in China" (Washington, DC: Office of the Press Secretary, February 24, 2000). For a comprehensive forecast of market access by product, see Jonathan R. Coleman, Jonathan T. Fry, and Devry S. Boughner, "The Impact of China's Accession to the WTO on U.S. Agricultural Exports" (Washington, DC: U.S. International Trade Commission, September 2002).

Figure 2: Basic Composition of U.S. Agricultural Exports to China and to the World, 2012
Share (%)



Notes: Due to a rounding error, totals may not add up to 100.

Under the USDA's classification system, "bulk commodities" refer to crops shipped in raw form, such as wheat, coarse grains, rice, soybeans, and cotton; "intermediate goods" refer to processed crops, such as flour, soybean meal, and feeds and fodders as well as products not directly for consumer use, such as live animals, planting seeds, hides and skins, and sweeteners; "consumer-oriented products" include, among others, meat and dairy products, fruits and vegetables, and snack foods.

Source: USDA (Washington, DC: Foreign Agricultural Service, 2013).

The emerging trade relationship with China also poses risks to the food industry on U.S. shores. China has not done enough to promote food safety for its own people but maintains a trade surplus with the United States in consumer foods. U.S. consumers eat large amounts of fish, fruits, and vegetables, as well as vitamins and food supplements, produced in China.* U.S. government food safety inspectors have been unable to sufficiently monitor the safety of these imports and have been restricted, too, in their access to food production sites within China. At the same time, Chinese food companies, led by pork producer Shuanghui Group, are beginning to acquire productive assets in the U.S. food sector. Such investments could improve China's food production by helping its companies to adopt best practices. For the United States, they also have implications for net economic benefits, intellectual property, and reciprocal market access.

China's Changing Consumption Needs

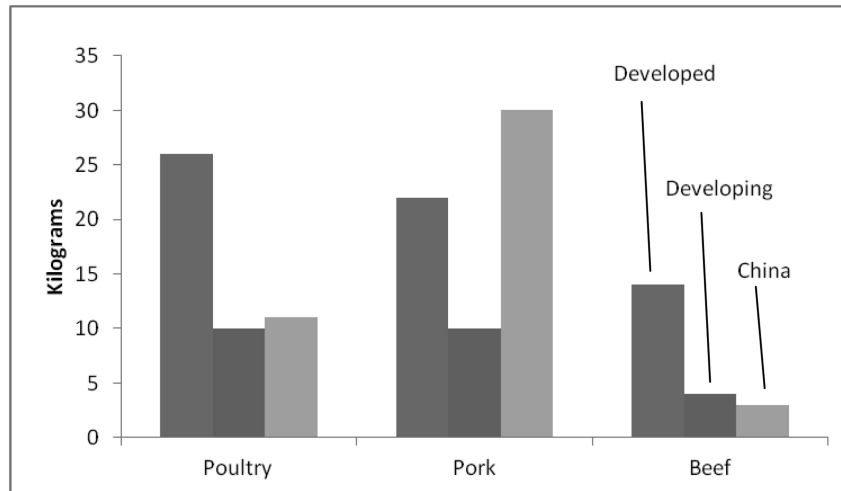
China's economic development over the past 30 years has caused a structural shift in the country's dietary habits. In 1980, China consumed 68 percent less meat per capita than the world average;

*For more information, see U.S.-China Economic and Security Review Commission, *Hearing on China's Enforcement of Intellectual Property Rights and the Dangers of the Movement of Counterfeited and Pirated Goods into the United States* (Washington, DC: June 7-8, 2006).

today, it consumes 19 percent more.¹² There is still room for additional meat consumption. Although economic growth is slowing, China's population of 1.3 billion is seeing a faster rise in real wages than previously, and just over half of the population now lives in cities. Urbanization and higher incomes tend to correlate with protein-based diets.* Owing to income inequality among regions, rural and urban areas, and individual households, meat is enjoyed mostly by a small segment of China's population.

Chinese consumers could also diversify their dietary intake. China currently consumes around half of the world's pork, equivalent to 30 kilograms of pork per capita each year, far higher than the rest of the world. In contrast, its consumption of beef and poultry is relatively low. Poultry consumption per capita is about ten kilograms per year, compared to 42.4 kilograms in the United States (see figure 3). Poultry is a lower-cost option for increasing protein intake. Speaking on behalf of the U.S. Poultry and Egg Export Council, which represents 95 percent of the U.S. poultry industry, DTB Associates' Kevin Brosch forecast the impact that China would have on world markets if it increased its annual per capita consumption of poultry: at Japan's modest level of 17 kilograms per annum, China would require an amount equal to all current world exports of poultry.¹³

Figure 3: Per Capita Meat Consumption: China vs. Other Countries, 2012
Kilograms per capita per year



Source: Organization for Economic Cooperation and Development (OECD)/Food and Agriculture Organization (FAO), *Agriculture Outlook*, June 2013, via U.S. Meat Export Federation (Denver, CO).

*A more technical explanation of this phenomenon is the income elasticity of demand, or how much demand for a given product rises or falls with increases in income. Income elasticities in China, as in many other countries, have been negative for rice, wheat, and coarse grain, such that China consumes less of these products as it becomes wealthier. By contrast, its consumption of pork, poultry, and especially beef and fish will continue to rise rapidly with added income. Scott Rozelle, "Overview of China's Agricultural Development and Policies" (Center for Chinese Agricultural Studies, January 2010).

China's distinct dietary preferences provide additional opportunities to U.S. producers. The United States has a surplus of exactly those parts of the animal, such as pork offal and chicken paws, that Chinese consumers prize. These products can be sold at a much higher price in China than the United States.¹⁴ The U.S. meat products exported to China are predominantly in these categories.¹⁵ As Dermot Hayes of Iowa State University told the Commission, if U.S. producers could sell the other half of the carcass in China at a premium, they could double their revenue without significant production cost increases.¹⁶

As Chinese consumers change their diets, they are seeking safer food as well. Some of this vigilance has resulted in suspicion of new technologies, such as genetically modified foods.* A spate of food safety scandals in China has also made consumers justifiably worried about what they are eating. China's food production industry is highly fragmented. Many producers at the farming, processing, and distribution levels forgo safe practices in order to cut costs.¹⁷ Food is adulterated, among other things, by the excessive use of fertilizers and pesticides; growth-enhancing antibiotics for livestock; and toxic chemicals that artificially enhance the freshness, appearance, or nutritional value of food. Due to false or incomplete labeling, harmful ingredients are often not disclosed.¹⁸

In response, Chinese citizens, with the aid of new social media, are seeking more information about food safety beyond government sources. Many have voiced grievances about a "special food supply" that caters to government officials.† Chinese consumers are also transitioning from wet markets to supermarkets,‡ in the process becoming more attentive to third-party labeling, traceability, and trusted brands.¹⁹ Those with more disposable income are turning to premium food products to ensure safety. Interest in organic food is spreading, ranging from farmers' markets to community farming and organic food clubs.²⁰ On the outskirts of Xi'an in western China, the Commission visited a company that combines a vegetable seed business with organic food production. Members of the

*The Chinese public remains very divided about genetically modified (GM) foods. Some critics, inspired by Japan and the European Union, maintain that GM foods are not safe for either production or consumption. Oddly, China has yet to legalize the planting of GM crops, even though it has invested large amounts in developing its own biotechnology. China does, however, import GM crops, such as soybeans and corn, which are fed to China's livestock. Some argue that this intermediate form of GM food consumption is less obvious to consumers and hence less controversial. Jikun Huang et al., "A Consumer Segmentation Study with Regards to Genetically Modified Food in Urban China," *Food Policy* 35 (2010): 456-62.

†"Special food supply" refers to food for Chinese officials grown at special production sites. The system was first established under Soviet influence in the 1930s as a means to protect the Communist Party leadership against famine. Today, special food supply sites in China are associated with organic food production. While the precise quantity and nature of these production sites is unclear, articles in the Chinese media indicate that the "special food supply" has caused some consternation among ordinary Chinese. Barbara Demick, "In China, What You Eat Tells Who You Are," *Los Angeles Times*, September 25, 2011, via Factiva database; Jiang Gaoming, "Jiang Gaoming: Shipin tegong jidi pinxian tuxian shipin jianguan ganga" (Jiang Gaoming: The Appearance of New Special Food Supply Sites Is an Embarrassment to China's Food Regulators), *Guangming Wang* (Guangming Net), February 25, 2013. http://health.gmw.cn/2013-02/25/content_6800842.htm; Nandu online, "Hu Xingdou: Jianyi quxiao tegong zhidu, jie jue tequan fubai" (Hu Star: Recommendations on Eliminating the Special Food Supply System, and Resolving the Corruption of Special Privilege), May 14, 2013. <http://ndnews.oeeee.com/html/201305/14/59741.html>; and Fazhi Ribao (China Law Daily), "Tegong shangpin wushi zhengce, xuezhe cheng bufen guojia jiguan tan xiaoli," (Special Supply Products Unregulated, Scholars Ascribe It to Greed in Some Government Agencies), February 2, 2012. <http://politics.people.com.cn/BIG5/16998050.html>.

‡A wet market is a fresh food market commonly found in Asian countries. It often sells live animals and raw meat.

company's organic food service pay an annual fee of around \$800 to have organic food shipped to their homes.²¹

Worries about food safety are also boosting food imports. A striking example is the dairy sector. The adulteration of infant formula with melamine, a toxic industrial solvent, caused China's dairy imports to grow at an annualized rate of 45 percent between 2009 and 2012—more than double the previous rate and double the rate of increase in total food imports.²² Mainland Chinese are buying baby formula and ultra-high-temperature milk from the shelves of supermarkets in other countries, where retailers have been compelled to ration sales to limit hoarding.²³

Reacting to the rise in consumer demand, the Chinese government has begun to allow some imports of U.S. premium consumer foods bearing the “USDA approved” logo. U.S. pear farmers, for example, received import licenses from Beijing in early 2013 and plan to focus on wealthy consumers concerned about the safety of domestic pears.²⁴ These U.S. products often directly compete with goods produced in China.

Examples of Food Safety Scandals in China

In recent years, food safety scandals in China have affected a variety of consumer food items:

Dairy Products

Melamine mimics the nutritional values of protein. It has been used in China to mask the low protein content of dairy products, such as milk powder and infant formula. In 2008, six infants were killed, and more than 12,000 were hospitalized with kidney and other organ damage from adulterated formula. The scandal led to the execution of two producers and prison terms for dairy company executives. In February 2011, reports emerged of another milk contamination scandal involving leather-hydrolyzed protein. The toxic additive has also been found in such processed products as candy, hot cocoa, and flavored drinks, some of which are exported from China to other countries.

Fruits, Vegetables, and Tea

Police in the northeastern city of Shenyang seized 40 tons of bean sprouts in 2011 that had been treated with sodium nitrite, urea, antibiotics, and plant hormones. Wholesale vegetable dealers in Shandong Province in 2012 were found spraying cabbages with formaldehyde to preserve them during transport without refrigeration. Chinese media in 2012 reported that fruit from 16 companies contained excessive pigments, bleaching agents, and preservatives. Testing by Greenpeace found at least three different kinds of pesticides in each of 18 varieties of tea.

Examples of Food Safety Scandals in China—Continued

Meat and Fish

Pork is sometimes adulterated with clenbuterol, a lean meat additive that can cause dizziness, heart palpitations, and diarrhea. Other reports have identified pork contaminated by phosphorescent bacteria, while rat meat has been substituted for lamb sold on skewers in Beijing. A 2012 report revealed that fish vendors in Beijing were using a chemical ordinarily meant for temporary dental fillings in order to tranquilize fish during transport.²⁵

China's Unsustainable Agriculture Policy

The Focus on Self-Sufficiency and Domestic Production

China has seen the fastest growth in agricultural output of any major economy over the past 30 years. In the Maoist period (1949–76), agronomists feared that China would place a strain on the world food system by being unable to feed itself. Today, China produces over 20 percent of the world's cereal grains, 25 percent of the world's meat, and 50 percent of the world's vegetables.²⁶ Based on a common definition of arable land, the United States has more than twice the cropland of China, yet China's output is two-and-a-half times that of the United States.* China feeds not only its own population of 1.3 billion—it is also the world's largest exporter of numerous foods, including apple juice, farm-raised fish, garlic, and vitamin C.²⁷

Beijing's agriculture policy has played a role in enhancing China's food productivity. Until the late 1970s, the government mostly procured agricultural goods from farmers at below-market rates. Reforms in the 1980s allowed farmers to sell some production on the open market at a higher return and established a land contracting system that permitted the leasing of land for several decades. Beginning in the 1990s, China's opening to world markets led to more export-oriented production, inbound foreign direct investment, and international development support from aid agencies such as the United Nations and the World Bank.²⁸

The government is seeking ways to further modernize the agriculture sector. Crop yields, for instance, are still below potential due to poor planting techniques and postharvest waste.† The government has responded with ambitious measures. Since joining the WTO, China has increased its research and development (R&D) spending on agriculture more rapidly than any other country.²⁹

* China has achieved greater agricultural output than the United States with a smaller share of arable land. As outlined in this section, this phenomenon is mainly attributable to the intensive and unsustainable use of labor, resources, and land. Dense livestock production, double-cropping, overuse of fertilizers and pesticides, and land reclamation in arid regions are some examples of intensive farming methods. Relative to the United States, the productivity of China's farming sector remains very low. U.S.-China Economic and Security Review Commission, *Hearing on China's Agriculture Policy and U.S. Access to China's Market*, testimony of Dermot Hayes, April 25, 2013.

† Postharvest waste refers to the loss in the process of storing grain after it is harvested. In China, grain crops are often exposed to adverse natural elements due to the lack of adequate storage facilities. Shannon Herzfeld (vice president, Archer Daniels Midland), telephone interview with Commission staff, Washington, DC, August 9, 2013.

China's 12th Five-Year Plan (2011–2015) for the first time shifts the explicit focus of agriculture policy from rural development to boosting agricultural output. It lays out a blueprint for consolidating industry, modernizing production facilities, and promoting regional specialization.³⁰ The 12th Five-Year Plan has been complemented by the No. 1 Document—China's first policy document each year, which since 2004 has been devoted to agriculture. The most recent No. 1 Document, issued in January 2013, summarizes a comprehensive set of policies, including incentives for new farming operations; corporate investment in agriculture; food grain security measures; and credit for farmers.³¹ During the Commission's July 2013 trip to China, participants met with top scientists at the Chinese Academy of Agriculture Sciences who are exploring ways to boost productivity through farmer training, satellite mapping, biotechnology, and reclamation of arid and polluted soils.³²

However, many of China's agricultural policies are inefficient and unsustainable. These policies are driven, in part, by the government's emphasis on attaining self-sufficiency across a broad spectrum of food products, when a more rational policy would be to import products for which China lacks a comparative advantage. Beijing keeps official targets of 95 percent self-sufficiency for corn, wheat, and rice. In practice, it also maintains near self-sufficiency for pork, poultry, and beef (see table 1). According to a typically optimistic forecast by Huang Jikun, a top researcher at the government's Chinese Academy of Science's Center for Chinese Agricultural Policy, China by 2025 will have *no* trade deficit in either meat products or wheat and rice and will continue to be a net exporter of fruits, vegetables, and farm-raised fish.³³

Table 1: China's Self-Sufficiency in Beef, Pork, and Broiler Chickens, 2009–2012

1,000 metric tons per year

	2009	2010	2011	2012
<i>Beef</i>				
Production	5,764	5,600	5,550	5,540
Consumption	5,749	5,589	5,524	5,597
Surplus/deficit	15	11	26	(57)
Surplus/deficit share of consumption	0.3%	0.2%	0.5%	–1.0%
<i>Pork</i>				
Production	48,905	51,070	49,500	52,350
Consumption	48,823	51,157	50,004	52,275
Surplus/deficit	82	(87)	(504)	75
Surplus/deficit share of consumption	0.2%	–0.2%	–1.0%	0.1%
<i>Broiler chickens</i>				
Production	12,100	12,550	13,200	13,700
Consumption	12,210	12,457	13,015	13,543
Surplus/deficit	(110)	93	185	157
Surplus/deficit share of consumption	–0.9%	0.7%	1.4%	1.2%

Source: USDA, "Livestock and Poultry: World Markets and Trade," (Washington, DC: Foreign Agricultural Service, April 2013). http://www.fas.usda.gov/psdonline/circulars/livestock_poultry.pdf.

Misallocation of Resources for Meat Production

A central problem of China's agriculture policy is its concentration on livestock production. China accounts for half of the world's pork output. It is also the world's largest producer of farm-raised fish, second-largest producer of poultry, and third-largest producer of beef.³⁴ Meat is an inefficient way to deliver calories, as it requires land- and water-intensive production of grain crops to feed animals instead of humans. For example, 1,799 gallons of water may be required over the life of a cow before it is slaughtered.³⁵ China's low productivity, coupled with its lack of resources, exacerbates these inefficiencies.

China lags far behind the United States in its ability to convert livestock into meat. China last year bred 15 percent more cattle than the United States—104 million head—but produced less than half as much beef. China produced five times more pork than the United States but required seven times as many hogs.³⁶ Nor is productivity necessarily improving over time. China's hog herd grew by 0.6 percent per annum in the 2000s, compared to 2.7 percent in the 1990s. China's pork output slowed even more over the two decades, from 5.9 percent to 2.2 percent per year.³⁷ Following an outbreak of blue ear pig disease* that killed off much of the herd, China's pork production actually contracted by 7.8 percent in 2007.³⁸ In contrast, the United States is achieving record pig herds and pork output, due to improved genetics and swine management techniques that have had more baby pigs survive to maturity.³⁹

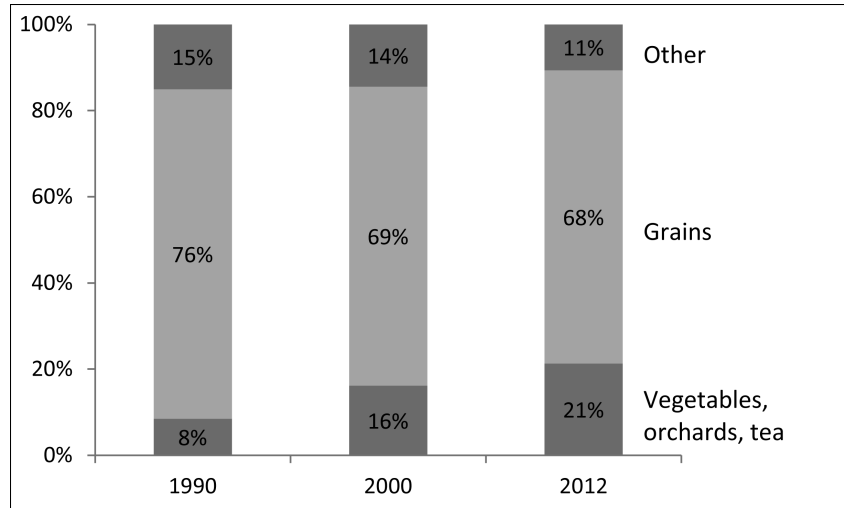
As a consequence of livestock production, China is using scarce resources to produce grain crops for animal feed. In the 1990s, China began to devote more acreage to horticulture cash crops. Yet over the past decade, that reallocation of land has slowed, such that grain crops still account for 68 percent of sown land (see figure 4). Within the grain sector, corn has overtaken rice as China's most widely planted and produced crop—reflecting the booming demand for corn feed.⁴⁰

China's focus on grain crops has also diverted valuable water resources to what is a less profitable crop. According to Dr. Hayes, it has been bad business for China's farmers:

Consider the human resource waste when a skilled farmer spends an entire year growing three acres of corn in a world where a single U.S. farmer can grow three thousand acres. If China were to allow the market to incentivize these farmers to grow high value crops such as flowers, fruits, vegetables and ornamental plants, total farm income and the value of farm output would soar.”⁴¹

* Blue ear pig disease, also known as porcine reproductive and respiratory syndrome, is a pandemic disease that causes reproductive failure in breeding stock and respiratory tract illness in young pigs. It was first reported in North America in the 1980s.

Figure 4: Distribution of Sown Area in China, 2002–2012
Share (%)

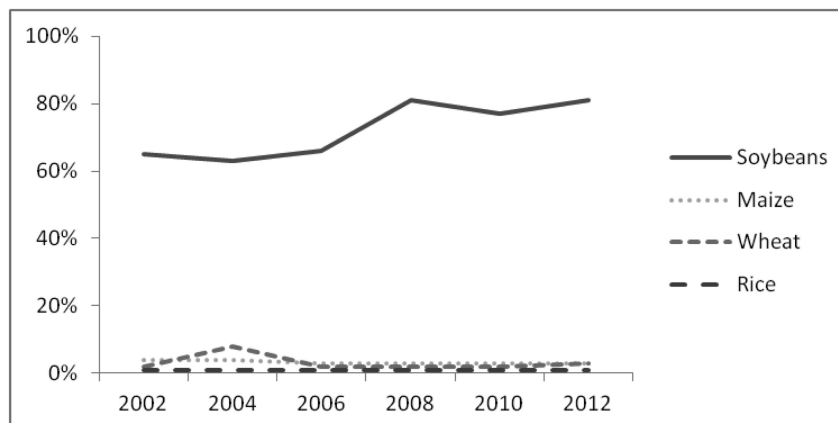


Note: Due to a rounding error, totals may not add up to 100.
Source: National Bureau of Statistics, via CEIC database.

In spite of China's commitment to planting grain crops, domestic crops have not sufficed to feed all of the country's livestock. The government in the late 1990s began to sanction imports of soybeans as an alternative source of animal feed. China now imports four-fifths of the soybeans it consumes (see figure 5).⁴² But even soybean imports are proving too little to meet China's need for feed grains. In 2010, China for the first time imported large quantities of corn. A recent Iowa delegation to China testified that corn imports will keep rising.* While these developments may bode well for U.S. corn farmers, the fact is that China is tacitly abandoning its 95 percent self-sufficiency policy for corn, even as it promotes its own large-scale corn production.

*When traveling to southern China in March 2013, a group from the Iowa Soybean Association heard an estimate from a private trader that China would be importing 20 million metric tons of corn in five years, up from small amounts of net corn imports today. U.S.-China Economic and Security Review Commission, *Hearing on China's Agriculture Policy and U.S. Access to China's Market*, testimony of William Northey, April 25, 2013.

Figure 5: Import Penetration of Major Crops in China, 2002–2012
Imports/Domestic Utilization (%)



Source: Food and Agriculture Organization, *Agricultural Market Information System* (Rome, Italy: Agricultural Information System: Secretariat). <http://www.amis-outlook.org/>.

The Impact of Food Production on China's Environment and Public Health

China's land and resources face rapid decline. It is doubtful whether the central government's target of maintaining 120 million hectares under cultivation can be met in the future. According to Dr. Hayes, China will continue to lose about 2.5 million acres, or up to 4 percent of its farm land, each year to urban development.⁴³ The remaining arable land is also becoming less useful. China's intensive fertilizer use per acre, the highest in the world, reduces soil fertility, causing a vicious cycle of ever more fertilizer application to achieve higher yields. Meanwhile, agriculture irrigation accounts for 65 percent of China's water withdrawal, compared to 40 percent in the United States.⁴⁴ Water tables in arid regions are being depleted.⁴⁵

Pollution of China's water, soil, and climate directly impact food quality. Only 6 percent of China's agricultural products were considered pollution free in 2005, according to figures compiled by the USDA. A study released in February 2011 found that 10 percent of all rice sold in China was contaminated with heavy metals.⁴⁶ Agriculture is a victim, but also a cause, of pollution. China's first national pollution census, released in February 2010, found that agriculture is a bigger source of water pollution than industry.⁴⁷ In order to produce vast quantities of pork, poultry, and farm-raise fish on limited land, China's breeders have resorted to high livestock density. For instance, China has kept five times the number of breeding sows—50 million—as the United States on much less farmland.⁴⁸ Consequently, livestock farms in China currently produce about four billion tons of manure annually. Manure could be used as nitrogen fertilizer for cornfields, but in China manure more often ends up as waste, because corn is planted in other re-

gions of the country.* That creates oxygen-depleting algae blooms and nutrient overloads in waterways, including the Yangtze and Yellow rivers. Not least, manure contributes to climate change by emitting methane gas into the atmosphere.⁴⁹

Dense livestock production has increased the incidence of animal diseases as well. In 2013, thousands of diseased pig cadavers were found floating in the river near Shanghai, dumped by illegal pork producers seeking to evade local food inspectors.⁵⁰ Similarly, in the poultry sector, the density of fowl has turned China into a breeding ground for avian influenza, with the most recent H7N9 outbreak occurring earlier in 2013.⁵¹ According to Fred Gale of the USDA, these animal disease outbreaks should “drive the [Chinese] leadership to acknowledge that the production of livestock has really grown beyond the carrying capacity of the country.”⁵²

In contrast, U.S. meat production is more environmentally sustainable than in China. In Iowa, where corn and pork are produced side by side, manure is used as nitrogen fertilizer, and corn is harvested at the source where it is needed, forming a localized, low-cost, and self-sustaining production cycle. Said David Miller of the Iowa Farm Bureau:

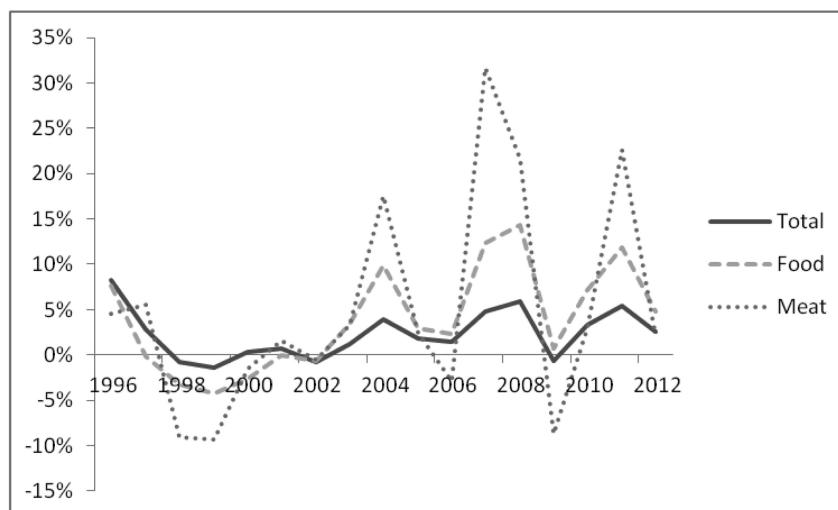
*From an environmental perspective, there is significant room for Iowa to increase pork production. Currently, Iowa farmers apply about one million tons of nitrogen from commercial fertilizer on Iowa farms and about 250,000 tons of nitrogen from manure. About 70 percent of the manure-based nitrogen is from hog production. If all of the commercial nitrogen for corn were to be replaced by nitrogen from hog manure, the Iowa hog herd would need to be currently five times as large as it is for increased production.*⁵³

The Cost of Domestic Production for Chinese Consumers

In addition to the food safety risks discussed above, China’s consumers worry about prices. Food has been the main driver of consumer inflation, which reached historic highs in the 2000s (see figure 6). Said Dr. Hayes, “They joke over there that the CPI [consumer price index] means consumer pig index, because if you spend 40 to 50 percent of your income on food, the thing you want to do is to upgrade to meat, and when that goes high, the Chinese government senses insecurity.”⁵⁴ Periods of unrest, such as the 1989 Tiananmen Square protests, have been accompanied by high inflation.⁵⁵ The Great Famine in 1958–1961, which killed an estimated 15 million to 40 million people on account of faulty government policy, is etched in China’s national psyche.⁵⁶

*China has been trying to diversify its hog production out of the Yangtze Delta into other parts of the country, particularly the North, where China’s grain crops are grown. However, these efforts have had limited success. Northern China’s hog production has remained around one-quarter of hog production since 1995. Kevin Chen and Wang Jimin, “Hog Farming in Transition: The Case of China” (paper presented at *Asian Livestock: Challenges, Opportunities and the Response*, Proceeding of an International Policy Forum, Bangkok, Thailand, August 16–17, 2012), p. 77; Mindi Schneider, “Feeding China’s Pigs: Implications for the Environment, China’s Smallholder Farms, and Food Security” (Minneapolis, MN: Institute for Agriculture and Trade Policy, May 2011), p. 3.

Figure 6: Annual Consumer Price Inflation in China, 1996–2012
Year-on-year (%)



Source: National Bureau of Statistics via CEIC database.

A policy of domestic meat production further raises costs. According to Dr. Hayes, feed costs alone make China's pork production and farm-level livestock 40 percent more expensive than in the United States. Soy meal prices are typically \$100 per ton and corn \$3 per bushel higher in China than in the United States, owing to shipping costs.⁵⁷ In view of China's widening income gaps, the burden of higher prices is especially harmful to low-income households that are forced to spend more on meat products.⁵⁸

Lack of Support for Rural Livelihoods

An underlying rationale for China to favor domestic production is to support the nation's farmers. According to the Central Intelligence Agency, one in three Chinese workers is still active in agriculture.* Agriculture net output accounts for 10 percent of China's GDP—compared to 1 percent in the United States.† China's market reforms have not done nearly as much to improve the well-being of the rural population as they have for the urban sector. Wages have risen much faster in cities, widening rural-urban disparities. Young people are leaving villages in droves to earn higher wages

*Due to China's large migrant population, off-farm employment in the rural sector, and subpar demographic data, there are varying estimates of the total population economically active in agriculture. See Central Intelligence Agency, *World Factbook* (McLean, VA). <https://www.cia.gov/library/publications/the-world-factbook/fields/2048.html>; Scott Rozelle, "Overview of China's Agricultural Development and Policies" (Center for Chinese Agricultural Studies, January 2010); and Peter Hooper et al, "Demographics and GDP Growth in China" (Frankfurt, Germany: Deutsche Bank, November 16, 2012).

†Net output refers to "agriculture, value added," which the World Bank defines as "the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources." World Bank Indicators (Washington, DC: World Bank). <http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>.

in factories.⁵⁹ China's National Bureau of Statistics estimates that China has 170 million migrant workers.⁶⁰

Maintaining rural livelihoods became a top priority for the Chinese leadership under the administration of President Hu Jintao and Premier Wen Jiabao (2003–2012). A document released at a central work meeting on rural development in December 2005 stated: "Only when the problems relating to agriculture, rural areas, and the farmers have been solved properly, can China's economy develop in the correct direction."⁶¹ The government enshrined these initiatives in the 11th Five-Year Plan for Agriculture (2006–2010), under the theme of "building a new socialist countryside."⁶² In 2006, all farmers were exempt from an agricultural tax that had been in place for millennia.⁶³ These policies built on the agricultural reforms initiated by Deng Xiaoping under the so-called "three rural issues," shorthand for the need to raise agricultural productivity, boost rural incomes, and provide welfare to rural migrants.⁶⁴

The leadership under Xi Jinping is now changing tack by encouraging an ambitious urbanization strategy. The goal is to fully integrate 70 percent of the country's population, or roughly 900 million people, into city living by 2025.⁶⁵ With a smaller rural population, agriculture could be concentrated around a core of wealthier farmers. Fewer farm laborers would, in theory, also make farmland more productive. Mechanization of cropland, for instance, could raise planting density, while larger pork feed lots would enhance efficiency and safety.⁶⁶

Nonetheless, a policy of urbanization and agricultural modernization will be difficult to realize. For one, China's successes in food production have relied heavily on labor intensity. Chinese farmers have planted multiple crops on the same land each year. A large portion of the country's livestock has been fed on manually collected food scraps and waste from restaurants. Low-wage farm workers have reclaimed land in rocky areas and hillsides that would not be considered arable in the United States.⁶⁷ In areas where bees have become extinct, farmers have pollinated trees by hand.* As farm labor declines, China will have to find means to mechanize and scale up production.

To this end, the government is experimenting with models to consolidate land. Yet, the institutional structures currently in place are not conducive to a U.S.-style system of production. China's average farm size is just 1.5 acres, down from 1.7 acres 20 years ago.⁶⁸ U.S. farms average 600 acres. The few large farms that are being established make only a small dent in overall production; in the pork sector, for instance, backyard farmers and small, specialized farms account for four-fifths of output.⁶⁹ Further, China's complex system of land distribution, whereby rural collectives led by local officials reserve the right to allocate land to farmers, rural enterprises, and urban developers, is politically contentious and has frequently led to expropriation.† The government took a step for-

* In line with a global trend, bees in China are becoming extinct. China's farmers therefore pollinate many horticultural crops by hand using artificial pollen substitutes. Stephen Holden, "In Fields and Hives, Zooming In On What Ails Bees," *New York Times*, June 11, 2013. <http://movies.nytimes.com/2013/06/12/movies/more-than-honey-a-documentary-by-markus-imhoof.html>.

† The policy that land should be contracted for 30 years with no adjustments became law when the Land Management Law was revised in 1998. Samuel P.S. Ho and George C.S. Lin,

ward in 2003 by banning large reallocations of land and permitting farmers to lease land to locals and nonlocals. That gave rise to a rental market that allowed less productive farm workers to relocate to cities. But to this day, land is owned at the village level and cannot be mortgaged.⁷⁰ Farmers' cooperatives in the United States help farmers to coordinate and scale up their production, but in China, only one in four villages hosts a cooperative. In an authoritarian system that restricts freedom of organization, local officials can curb the independence of cooperatives as well.*

The absence of a functioning welfare state in China poses a further obstacle to modernizing agriculture. The government has yet to reform the system of residence permits (*hukou*) in urban areas that would grant all rural migrants access to urban welfare provision (For more on urbanization, see chap. 1, sec. 1, of this Report.). Independent surveys show that younger family members are migrating to cities temporarily, while the elders stay behind to tend the land.⁷¹ Farmland, leased for 30 years, remains an important form of personal insurance that many migrants are reluctant to give up.

The Impact of China's Agriculture Policy on U.S. Exports

Measuring the Impact of China's WTO Violations

Prior to its WTO accession, China's trade barriers included exorbitant tariffs, quotas, state trading monopolies, and outright bans on some agricultural products. China agreed to eliminate most of these barriers. In 2002–2006, China lowered tariffs on agricultural goods of greatest importance to U.S. farmers and ranchers from a 1997 average of 31 percent to 14 percent. The last tariff reductions occurred in 2008. As Stanford agricultural economist Scott Rozelle has shown, the reduction in tariff rates allowed prices for many commodities in China to converge with world markets. China's average tariffs and supports for agriculture are now below those of several other WTO members, including the European Union, Japan, and South Korea.⁷²

The effects of China's trade liberalization are evident in its trade balance. China's net imports of food have surged from near zero to more than \$40 billion since 2004. As Colin Carter, professor of Agricultural & Resource Economics at University of California–Davis, told the Commission, China maintains an export-oriented horticulture industry, but imports of these products are outpacing exports.⁷³ Although China remains largely self-sufficient, a small adjustment in its imports has a disproportionate effect on global markets. Based on unofficial estimates that include Hong Kong, China is already the world's top importer of beef and pork.⁷⁴

Nonetheless, China keeps numerous nontariff barriers in place to restrict U.S. imports. They include excessive subsidies; government control over import quotas; discriminatory taxes; and sanitary and phytosanitary restrictions that are not based on proper scientific

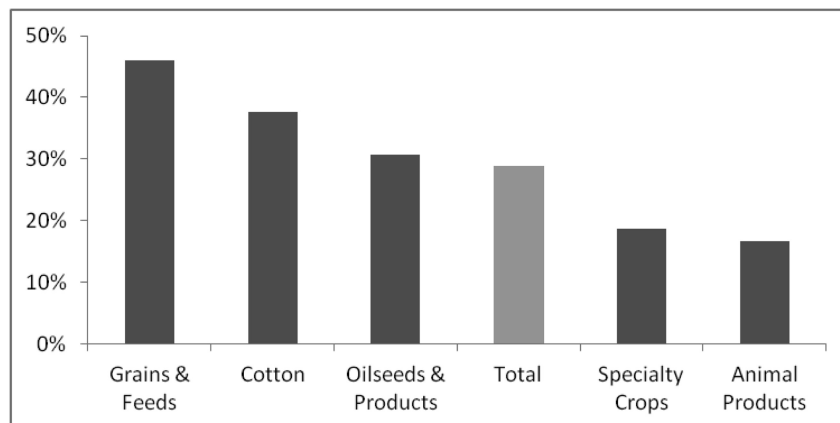
"Emerging Land Markets in Rural and Urban China: Policies and Practices," *China Quarterly* 175 (September 2003): 689–707.

*The technical term for China's cooperatives is "farmers' professional economic cooperative." Data from a 2009 survey by the Center for Chinese Agricultural Policy. Scott Rozelle, "Overview of China's Agricultural Development and Policies" (Beijing, China: Center for Chinese Agricultural Policy, January 2010).

analysis.* These measures have contributed to a very imbalanced food trade between the United States and China. U.S. soy farmers have reaped a windfall, accounting for three-fifths of U.S. agriculture exports to the Mainland in 2012.⁷⁵ China buys up to seven times more soybeans from the United States than Japan, the next-largest customer.⁷⁶ Yet other crops have not enjoyed fair and stable access. With the exception of dried distillers grains, a corn-based byproduct of U.S. ethanol production,[†] value-added products based on crops have also had limited success.

Worse still, U.S. consumer foods have entered China at a slower rate than total trade (see figure 7). China has banned U.S. beef for a decade. Although China is currently a top market for U.S. pork, China's pork purchases have been erratic due to unpredictable food safety-related bans. The U.S. Meat Export Federation claimed in 2012 that sanitary barriers posed "the single largest constraint to the expansion of U.S. beef, pork and lamb exports over the next five years."⁷⁷ After China placed antidumping duties on U.S. broiler chickens in 2010, poultry exports plummeted as well.

Figure 7: Annualized Growth of U.S. Agricultural Exports to China, 2002-2012
Compound Annual Growth Rate (%)



Source: USDA (Washington, DC: Foreign Agricultural Service).

China's nontariff barriers are often protectionist measures. According to Dr. Gale of the USDA, China's self-sufficiency policy is based on an exaggerated alarm about the risks of import reliance. Beijing presumably worries that the volume of potential Chinese

*Sanitary and phytosanitary regulations restrict or prohibit imports and marketing of certain animal species, or products, to prevent the introduction or spread of pests or diseases that these animals may be carrying. World Trade Organization, "Introduction to the SPS [Sanitary and Phytosanitary] Agreement" (Geneva, Switzerland: 2013). http://www.wto.org/english/tratop_e/spse/spse_agreement_cbt_e/c1s3p1_e.htm.

[†]Distillers' grains are a cereal byproduct of the distillation process. There are two main sources of these grains. The traditional sources were from brewers. More recently, ethanol plants are a growing source. Corn based distillers grains from the ethanol industry are commonly sold as a high protein livestock feed that increases efficiency and lowers the risk of subacute acidosis in beef. U.S.-China Economic and Security Review Commission, *Hearing on China's Agriculture Policy and U.S. Access to China's Market*, testimony of Julius Schaaf, April 25, 2013.

demand is so large that food imports would outstrip the capability of world markets to supply the country. There are also strategic concerns that reliance on imports of any particular commodity will leave China vulnerable to global price fluctuations and manipulation of prices by other countries or multinational companies.⁷⁸ In addition, China's agriculture policy manifests the government's broader industrial policy. In numerous industries, from furniture to textiles and steel, China imports raw materials for value-added processing. That policy frequently entails heavy subsidies for land, labor, and capital; selective market barriers for imports and foreign investment; and, increasingly, support for strategic enterprises and outbound investment in productive assets overseas.

Sanitary and Phytosanitary Barriers to U.S. Meat Exports

The WTO sets out clear obligations for member states to only use sanitary and phytosanitary restrictions that do not "arbitrarily or unjustifiably discriminate between WTO members' agricultural and food products, and are not disguised restrictions on international trade."⁷⁹ China has applied numerous food safety-based restrictions on trade that contravene these principles.

China has persistently banned U.S. meat products following epidemic outbreaks. In the interest of public health, countries customarily impose bans on imports if there is a related epidemic outbreak in the exporting country. China's bans, however, have frequently exceeded any necessary safety precautions. The most egregious case is the beef sector. China joined other countries in closing its market to U.S. beef imports in 2003 due to one discovered case of BSE (bovine spongiform encephalopathy, or "Mad Cow Disease").* But China kept its ban in place even after the United States was classified as a "controlled risk" country by the World Organization of Animal Health in July 2007 and as a "minimal risk" in May 2013.⁸⁰ Likewise, U.S. pork was subject to unjust bans in April 2009, under the pretext of an H1N1 virus outbreak, even though the virus is not transmitted by consumption of food products. China's Ministry of Agriculture and the General Administration of Quality Supervision, Inspection and Quarantine only removed the bans in December 2009.⁸¹

Another form of sanitary restrictions relates to residue levels. It is common for food products to contain some residual level of antibiotics, pesticides, or other potentially harmful substances. In order to facilitate trade, most trade partners agree on allowable maximum residue levels. Residues at low levels pose minimal health risks, according to international agreements. But China has adopted a zero-tolerance approach to ractopamine, a feed ingredient that significantly enhances yield and efficiency in pork production. The

* BSE (bovine spongiform encephalopathy) is a progressive neurological disorder of cattle that results from infection by an unusual transmissible agent called a "prion." The nature of the transmissible agent is not well understood. According to the USDA, the United States has registered four cases of BSE in 2003–2012. The case that first caused the bans on U.S. beef was recorded in December 23, 2003, in an adult Holstein cow from Washington State. On June 24, 2005, the USDA announced receipt of final results from the Veterinary Laboratories Agency in Weybridge, England, which confirmed the first endemic case of BSE in a 12-year-old Texas cow. On March 15, 2006, the USDA confirmed BSE in a ten-year-old cow in Alabama. On April 24, 2012, the USDA confirmed a BSE case in a ten-year-old dairy cow in California. U.S. Department of Health and Human Services, "BSE (Bovine Spongiform Encephalopathy, or Mad Cow Disease)" (Atlanta, GA). <http://www.cdc.gov/ncidod/dvrd/bse/>.

U.S. Food and Drug Administration (FDA) approved ractopamine as early as December 1999, and it is now approved by 26 countries, including several countries in Asia.* The Codex Alimentarius Commission reaffirmed the safety of ractopamine by adopting maximum residue level standards in July 2012.⁸² Given that codex determinations serve as a basis for the WTO rules on dispute resolution, China's zero-tolerance policy is inconsistent with its WTO commitments. China began blocking shipments from individual U.S. pork plants after it detected ractopamine in 2006. The issue was raised in 2009–2011 at working group meetings of the Joint Commission on Commerce and Trade, one of the main bilateral dialogue mechanisms between the United States and China. The United States requested that China adopt an interim maximum residue level for ractopamine. Still, China refused, and following the 2012 codex ruling did not take any steps to address its zero-tolerance policy.⁸³

Sanitary restrictions have had a considerable impact on U.S. livestock producers. The U.S. Meat Export Federation estimated in 2012 that the decade-old ban on U.S. beef cost producers as much as \$350 million a year.⁸⁴ The blow has been mitigated somewhat by huge gray markets that transship U.S. beef products through Hong Kong and other neighboring jurisdictions into China, to be sold at a markup price to wealthy diners and shoppers.† But that has not made up for the loss in market share. Australia, a U.S. competitor that is allowed to export its beef to China, saw its exports rise an incredible 1,948 percent year-on-year in the first half of 2013.‡

The barriers have also hurt pork producers, who rely on fixed rearing and slaughtering cycles and hope for predictable demand and prices. For instance, China's decision in March 2012 to disallow third-party audits of ractopamine in U.S. pork suddenly prevented a host of U.S. pork exports from going to China. According to Mr. Miller, that effectively cut the price of Iowa's 30 million hogs by \$10 per head.⁸⁵ Another factor that makes compliance with the ractopamine ban difficult is that it interferes with the complex segmentation of pork products. As Secretary Northey noted, the United States sends more pork pieces, such as offal, to China than

*As a part of the Codex Alimentarius process, ractopamine hydrochloride has three times been reviewed by the Joint FAO/WHO Expert Committee on Food Additives (JECFA), which has recommended safety standards that align with those within the approved use countries. The most recent review was for consideration of studies conducted and submitted by China. The JECFA scientific statement noted that: "The Committee concluded that, based on the data provided, including those from the three breeds of pigs in the studies undertaken by the People's Republic of China, and corresponding dietary information, the recommended MRLs [maximum residue levels] are compliant with the ADI [acceptable daily intake] as regards consumption of pig tissues of muscle, liver, kidney and fat. The estimated daily intake is approximately 50% of the upper bound of the ADI for a 60 kg person."

†The presence of this gray market was confirmed by numerous parties during the Commission's July 2013 trip to China. Beef is exported legally to Hong Kong, Vietnam, and the Philippines, then recontainerized and shipped to China. Exporters are allegedly willing to pay an additional fee for this transshipping. Because U.S. storage facilities operators in China refuse to harbor illegal imports, the U.S. beef often ends up stored in Chinese facilities, potentially making the product less safe. Many restaurants in Shanghai that serve U.S. beef carry two sets of books in case the authorities come to check on the beef's country of origin.

‡Although Australia is a major beef exporter, it did not send much beef to China until recently. Australia's traditional markets have been Japan, South Korea, the Middle East, and the United States. In the first half of 2013, however, China imported 62,421 tons of Australian beef, up from 3,048 tons a year earlier. Almost overnight, China became Australia's third-largest export destination for beef. Presentation by the U.S. Meat Export Federation (Shanghai, China, July 26, 2013).

whole hog carcasses. By not using ractopamine in the breeding process, U.S. pork producers incur a higher cost of production for the whole pig. That puts them at a competitive disadvantage when they sell muscle cuts and other parts in the U.S. market.⁸⁶

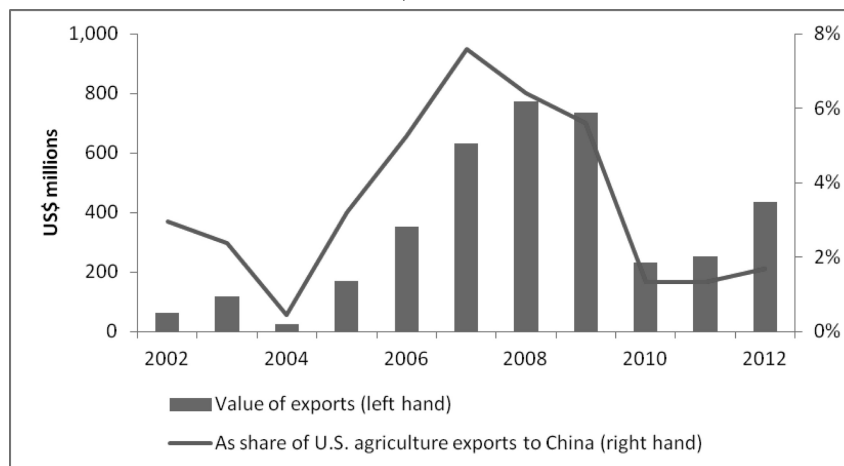
China's sensitivity to food safety for imports is partly a reaction to the country's internal safety problems. The Chinese government has argued in its defense that it lacks the technology to distinguish harmful from less harmful additives. It has also requested additional research on feed additive residues in the internal organs of pigs, since those parts of the animal are more widely consumed in China than the United States.⁸⁷ Still, as Dr. Gale asserted, China's stringency results in double standards. Although the Chinese government outlaws ractopamine, as well as a dangerous alternative, clenbuterol, countless Chinese pork producers continue to use these additives to increase feed efficiency. According to Dr. Gale, "This brings up an issue of a much tighter enforcement of standards and regulations for imports than in the domestic market," a violation of basic trade principles.⁸⁸ Mr. Brosch argued that "China's strict, and sometimes unsupportable decisions to impose limitations on U.S. imports are driven primarily by internal pressures on its government as a result of past domestic food safety mistakes. In our view, Chinese health officials are now under a tremendous amount of internal pressure and scrutiny and want to appear to their domestic constituents to be increasingly vigilant."⁸⁹

Antidumping Duties and the Tradeoff between Market Access and Food Safety

Antidumping (AD) and countervailing duties (CVD) disputes have been a point of contention in U.S.-China bilateral trade. The agriculture sector is no exception. China's Ministry of Commerce (MOFCOM) imposed AD and CVD duties on U.S. chicken broiler products in August and September 2010, respectively. The AD duties ranged from 50.3 percent to 53.4 percent for the U.S. producers who responded to MOFCOM's investigation notice, while MOFCOM set an "all others" rate of 105.4 percent. In the CVD investigation, MOFCOM imposed countervailing duties ranging between 4.0 percent and 12.5 percent for the participating U.S. producers and an "all others" rate of 30.3 percent. According to the Office of the U.S. Trade Representative, American exports to China of broiler products fell by 80 percent following the application of the duties (see figure 8).⁹⁰

Figure 8: U.S. Poultry Exports to China, 2002–12

US\$ millions



Source: USDA (Washington, DC: Foreign Agricultural Service).

The United States complained to the WTO in September 2011 and was vindicated in August 2013 when a WTO dispute settlement panel found that China's AD/CVD actions against U.S. broiler chickens violated its WTO commitments.* The panel supported nearly all of the U.S. claims, including substantive errors in MOFCOM's calculations and procedures.⁹¹ China decided not to appeal the ruling by the September 10, 2013, deadline.⁹² As a next step, China will have to demonstrate that it has complied with the ruling by repealing the duties. At a September 25 WTO Dispute Settlement Body meeting with Chinese officials, U.S. officials said they hoped the decision would force Beijing to fundamentally reevaluate how it proceeds in AD and CVD investigations.⁹³

Although the WTO decision marked a victory, the AD/CVD actions against broiler products are emblematic of a broader conflict in bilateral trade that is unresolved. China's actions against broiler products coincided with an escalation in other trade disputes. Beijing threatened to impose the duties on chicken in September 2009, weeks after the United States applied a 35 percent tariff on Chinese-made tires.† Within a week of the U.S.'s announcement that it would challenge the tariffs on broiler products, China applied dumping duties on U.S. automobiles and auto parts.‡ The United

* Broiler products include most chicken products, with the exception of live chickens and a few other products such as cooked and canned chicken.

† On September 11, 2009, the president imposed additional duties on imports of certain passenger vehicle and light truck tires from China for a period of three years in order to remedy the market disruption caused by those imports, as determined by the U.S. International Trade Commission (USITC). China challenged the imposition of the duties, alleging that the USITC's determination regarding market disruption and the level and duration of the additional duties were inconsistent with the Protocol of Accession and the General Agreement on Tariffs and Trade (GATT) 1994. A WTO panel later rejected all of China's claims, and the Appellate Body rejected all of China's claims on appeal. Office of the U.S. Trade Representative, "United States Prevails in WTO Dispute about Chinese Tire Imports" (Washington, DC: USTR Press Release, September 2011). <http://www.ustr.gov/about-us/press-office/press-releases/2011/september/united-states-prevails-wto-dispute-about-chinese>.

‡ This is now a separate WTO complaint by the United States. See WTO, "China—Certain Measures Affecting the Automobile and Automobile-Parts Industries" (Geneva, Switzerland: Dispute DS450). http://www.wto.org/english/tratop_e/dispute_e/cases_e/ds450_e.htm.

States also angered China by filing an AD case against Chinese honey in 2000. China's share of U.S. honey imports was around 30 percent when the AD case was initiated, and today that market share is near zero.⁹⁴

Furthermore, the broiler duties were implemented less than two years after Congress passed the DeLauro Amendment, a piece of legislation introduced by Representative Rosa DeLauro (D-OH), chair of the House Appropriations agriculture subcommittee, to the 2008 Farm Bill. The amendment prohibited funding the USDA Food Safety Inspection Service (FSIS) inspection of processed poultry imports from China. China soon challenged the ban in the WTO. The U.S. Trade Representative and the USDA worked with Congress to soften the language of the DeLauro Amendment in the fiscal year 2010 agriculture appropriations bill, opening the door to funding inspections of Chinese-processed poultry if certain conditions could be met by the USDA.⁹⁵ Nonetheless, China did not withdraw its WTO complaint and a year later won the case.⁹⁶ The United States subsequently repealed the amendment. Some U.S. agriculture officials and advocates argue that it left a negative legacy for market access negotiations, particularly in regard to China's bans on U.S. beef. Owing to the USDA's dual functions as a trade negotiator and food safety inspector, certain Chinese officials apparently believe that the agency is capable of influencing U.S. food safety legislation in return for greater market access in China.⁹⁷

U.S. interest groups are divided about the merits of curbing Chinese food imports through legislation such as the DeLauro Amendment. For Patty Lovera of Food & Water Watch and other food safety advocates, U.S. food consumers need to be protected from China's unsafe production and weak regulation. According to this argument, China does not deserve an "equivalence determination," under which its food safety process would be deemed equivalent to the USDA's standards. The USDA audits prospective meat processing plants in China and approves those that meet its standards but then only visits them on a periodic basis for auditing purposes.⁹⁸ In the United States, a USDA inspector is always present at each plant. For food safety advocates, these regulatory procedures do not sufficiently guarantee the safety of Chinese poultry imports (See Food Safety section below for more discussion of food safety inspection.)⁹⁹

On the other hand, poultry industry advocates argue that the U.S. government has committed a grave error in interfering with bilateral poultry trade. U.S. agribusinesses have invested heavily in Chinese chicken production and processing—both to feed Chinese consumers and as a future export platform to U.S. consumers—and they have been working to get USDA approval for Chinese poultry exports to the United States. These advocates argue that USDA-FSIS approvals and equivalency procedures of

⁹⁴According to a spokesperson at the time, Rep. DeLauro agreed to the amended bill in part because it requires that the USDA: (1) increase inspections and audits of Chinese poultry processing plants once they are certified; (2) make public the list of eligible plants and the outcomes of audits of those plants; and (3) not rush to an equivalency determination for the safety of China's poultry slaughter operations, which are to be subject to a separate approval process from poultry processing. *Inside U.S.-China Trade*, "Compromise Reached on Poultry Ban, Could End U.S.-China WTO Dispute," September 30, 2009, via Factiva database.

Chinese exporting plants are sufficiently stringent, as the United States currently permits poultry imports from only three other countries—Costa Rica, Canada, and Chile. The DeLauro Amendment, they argue, refuses USDA-FSIS the funding to even do its job. By targeting China, it also violates the U.S.'s WTO commitments and sets a bad example for unilateral action against a single trade partner in the WTO system. They further assert that very little processed poultry will be imported, as China has no commercial advantage in this market segment.¹⁰⁰

On September 5, the USDA-FSIS reaffirmed the equivalence of China's food safety inspection system for processed poultry, which was originally established in 2006. That will enable China to certify plants to export processed poultry products to the United States. The raw poultry used for these products must originate in the United States and Canada, as the USDA-FSIS has yet to provide equivalency status for slaughtered poultry in China. Nevertheless, the decision lays the foundation for negotiating future exports of processed poultry using Chinese-origin birds.¹⁰¹

State Trading and Domestic Supports

Another means by which China has restricted the flow of trade in agriculture is by requiring state trading* and providing domestic supports. These policies have done particular damage to U.S. exports of land-intensive crops and meat products. State trading impacts the allocation of tariff-rate quotas. Tariff-rate quotas function as a way of protecting a market from excessive imports and, at the same time, provide a means of liberalizing trade and breaking up monopolies by dividing up the quota among different traders and passing on unfilled quotas. Following WTO accession, China's trading monopoly China National Cereals, Oils and Foodstuffs Corp. agreed to reduce its exclusive rights by allocating some quotas to other traders in a transparent manner.¹⁰²

However, China has been reluctant to comply with these commitments. In 2002, the National Development and Reform Commission, the Chinese agency in charge of implementing the regulations, refused to provide details on amounts and recipients of allocations. It also reserved a significant portion of tariff-rate quotas for the processing and reexport trade instead of the import-competing sector. By 2004, tariff-rate quotas improved after considerable U.S. pressure through the Joint Commission on Commerce and Trade negotiations. Nevertheless, state-owned enterprises still dominate bulk commodity trading, accounting for an estimated 90 percent of the wheat quota, 60 percent of the corn quota, 50 percent of the rice quota, 70 percent of the sugar quota, and 33 percent of the cotton quota. One way that China achieves this is by maintaining stringent licensing requirements to limit the pool of eligible nonstate firms.¹⁰³

*State trading enterprises are defined as governmental and nongovernmental enterprises, including marketing boards, which deal with goods for export and/or import. Article XVII of the General Agreement on Tariffs and Trade (GATT) 1994 is the principal article dealing with state trading enterprises (referred to as "STEs") and their operations. It sets out that such enterprises—in their purchases or sales involving either imports or exports—are to act in accordance with the general principles of nondiscrimination and that commercial considerations only are to guide their decisions on imports and exports. It also instructs that members are to notify their state trading enterprises to the WTO annually. World Trade Organization (Geneva, Switzerland). http://www.wto.org/english/tratop_e/statra_e/statra_e.htm.

Further, Beijing has leveraged its extensive state control over commodity import decisions as a tool of economic diplomacy. In December 2003 and February 2012, then Premier Wen Jiabao and then Vice President Xi Jinping negotiated landmark soybean acquisition deals during state visits to the United States. In both cases, the acquisitions were timed as a “feel-good” deliverable to offset U.S. concerns about the bilateral trade deficit.¹⁰⁴

While China has agreed to minimize subsidies to meet its WTO commitments, it has found ways to support farmers and processors by subverting the rules. One example is its discriminatory use of the value-added tax (VAT) levied on industry. China signed on to the Article III of the General Agreement on Tariffs and Trade (GATT), which explicitly states, “WTO members shall not be subject, directly or indirectly, to internal taxes or internal charges of any kind in excess of those applied directly or indirectly to [a] like domestic product.” In fact, China has not complied with this commitment. In 2009, USDA-funded research found that China imposes a 13 or 17 percent VAT on food and agriculture imports, while China’s own farmers and meat producers use a complex rebate system in order to pay almost no VAT at all.* Stated Veronica Nigh of the American Farm Bureau Federation: “The effect of many of China’s VAT rebate adjustments is to make larger quantities of primary and intermediate products in a particular sector available domestically at lower prices than the rest of the world, giving China’s downstream producers the finished products using these inputs a competitive advantage over foreign downstream producers.”¹⁰⁵

The VAT tax is one of the reasons why value-added production has been transferred from the United States to China. Soybeans, the top U.S. agricultural export, are shipped primarily in bulk form instead of processed feed. According to Iowa Secretary of Agriculture William Northey, China’s domestic soybean crushing industry has expanded rapidly, to the extent that it now has 40 to 50 percent overcapacity.¹⁰⁶ Foreign investment has contributed to this capacity buildup—foreign agribusiness firms, including Archer Daniels Midland, Bunge, and Cargill, own about 70 percent of China’s soybean crushing industry.¹⁰⁷ Some of this production is also ending up on world markets: statistics compiled by the United Nations (UN) Food and Agriculture Organization show that China’s exports of feed, meal, and gluten increased by 63 percent a year in 2001–2011, while U.S. exports declined by 8 percent per annum over the same period. U.S. market share in this trade category declined from 79 percent to 43 percent in 2001–2011.¹⁰⁸

The Office of the U.S Trade Representative affirms that agriculture is just one of several sectors in which China has used discriminatory taxation to gain a competitive edge:

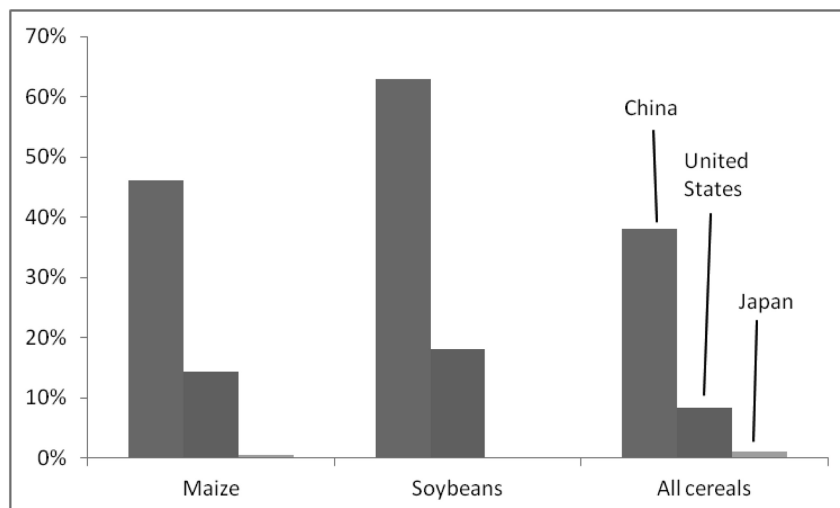
*Slaughterhouses and food processors, for example, are given major deductions from the nominal VAT, as they are permitted to “impute” a VAT paid at prior stages of production. The differential VAT rates charged for domestic producers and imports thus constitute a clear violation of Article III of the General Agreement on Tariffs and Trade (GATT) 1994. U.S. Trade Representative, *Hearing on China’s Compliance with World Trade Organization Commitments*, written testimony of National Pork Producers Council, September 24, 2012; and U.S. Grains Council, *National Trade Estimates Report Submission* (Washington, DC: October 12, 2012), p. 17.

*China's economic planners attempt to manage the export of many primary, intermediate and downstream products by raising or lowering the value-added tax (VAT) rebate ... these border tax practices have caused tremendous disruption, uncertainty and unfairness in the global markets for the affected products—particularly when these practices operate to incentivize the export of downstream products for which China is a leading world producer or exporter.*¹⁰⁹

China has also been able to provide billions of dollars in agriculture subsidies through a series of loopholes. One such loophole is how China defines the “value of production.” Farm support under the WTO’s de minimis provision is measured as a share of total production value. Agricultural production, according to the Chinese government’s questionable statistics,¹¹⁰ has been expanding at a significant 12 percent a year. Thus, subsidies can be very large in nominal terms but appear small relative to production.¹¹¹

A related form of farm support is China’s procurement and stockpiling of commodities to subsidize domestic producers and offset market prices.¹¹² For nearly all major staple crops, China holds an outsized share of global stockpiles (see figure 9).¹¹³ China has adopted a particularly aggressive stockpiling policy toward three of the largest U.S. exports to China: soybeans, corn, and cotton. The stockpiles are derived not only from imports but also domestic production. In 2008, in view of the rapid price increases and fluctuations of soybeans on the global market, the National Development and Reform Commission began to procure domestic soy at above the world market price, thus establishing a reserve stockpile and also boosting the income of its soy farmers. China announced last year that it would stockpile soybeans for a fifth year running.¹¹⁴ China’s latest No. 1 Document, released in January 2013, lays out policies to raise the minimum purchase prices for wheat and rice; stockpile corn, soybeans, and other crops; and adjust export and import duties as necessary to achieve food (grain) security.¹¹⁵

Figure 9: China, U.S., and Japan's Share of Surplus Stockpiles of Key Commodities, 2012
Share (%)



Note: Stockpiles are calculated based on what a country produces, consumes, and trades. The surplus left over at the end of each year is the stockpile.

Source: Food and Agriculture Organization, *Agricultural Market Information System* (Rome, Italy: Agriculture Market Information System Secretariat). <http://statistics.amis-outlook.org/data/index.html#>.

According to testimony from Mark Lange, the president of the U.S. National Cotton Council, China's subsidies to its domestic cotton industry are having a negative impact on U.S. cotton exports, which account for 14 percent of U.S. agricultural exports to China. China in recent years began procuring cotton from its domestic producers for a rate far above world market prices. That has actually hurt China's textile mills, which are forced to buy expensive cotton and are barred by import licensing quotas from increasing imports of cheaper cotton from the United States. The mills are thus turning to manmade synthetic fibers, in turn boosting China's chemical industry. This policy has affected U.S. cotton exports to China, as well as introducing considerable uncertainty into the industry, as cotton prices could plummet once China releases its stockpiles onto the world market.¹¹⁶

In the pork sector, the U.S. National Pork Producers Council recently estimated that U.S. pork exports to China would increase by 50 percent if China eliminated its domestic pork subsidies. Pork subsidies rose substantially following an outbreak of swine disease that reduced China's pork production in 2007 and 2008. In January 2009, the Chinese government introduced a price support scheme for pork called the "National Price Alert and Subsidy Program." The program is based on the ratio between China's live hog and corn prices: when the hog-corn price ratio falls below a certain range—either because pork is too cheap or corn too expensive—the government procures pork from the domestic market at generous prices to support pork farmers. Related policies include hog and

pork stockpiling; a sow insurance program; and a cash subsidy scheme for large-scale breeding farms.¹¹⁷

China's Agribusiness Development and Regulation of Foreign Investment

Restricted Access for U.S. Firms in China's Agriculture Sector

The United States has helped China in diverse ways to develop its agriculture sector. During its July 2013 trip, the Commission met with representatives of Archer Daniels Midland Company, Cargill China, Preferred Freezer Services, and other U.S. companies that have built state-of-the-art production, processing and storage facilities on the Mainland. Cargill China and OSI Group have recently established vertically integrated poultry breeding facilities by consolidating land from local farmers. U.S. companies hire thousands of employees in China and, in some cases, finance training at their facilities in the United States.¹¹⁸ U.S. food retailers, led by Yum! Brands, Inc. and McDonald's Corp., have transferred best practices in the food service industry. These private sector efforts are being reinforced by technical assistance programs administered by U.S. government agencies and U.S. universities. The United States and China have launched more than 500 science and technology exchange programs since they established the working group on agricultural science and technology cooperation in 1980, with around 3,000 experts involved. In 2011, the two sides held the fourth meeting of the China-U.S. Joint Commission on Agriculture, which developed guidance to the two working groups on agricultural sciences and biotechnology.*

However, in spite of these supportive efforts, U.S. companies have not been granted fair market access in China. A pervasive problem is regulatory uncertainty, in the form of state-run media campaigns targeting foreign brands; stricter oversight than for domestic companies; and corrupt practices by officials at the local level.† U.S. companies are required to enter into joint ventures with Chinese companies as a condition for investing in certain sectors.‡ Although this requirement per se does not violate China's WTO commitments, it often benefits China's state-owned enterprises. For example, Coca-Cola's joint venture partner in China is a subsidiary of China National Cereals, Oils and Foodstuffs Corp., the same conglomerate that dominates China's state trading of

* The Commission, on its July 2013 China trip, met with faculty from the Northwest Agriculture and Forestry University, one of China's top agronomics faculties based in Shaanxi Province, who discussed their partnerships with the University of California-Davis and other U.S. universities. Xinhua China Economic Information Service, "China to Deepen Agricultural Cooperation with U.S.," February 12, 2012, via Factiva database.

† A more optimistic assessment of these problems, voiced by some businesses, is that foreign companies serve as models for the rest of industry and are chosen by Chinese officials to experiment with new policies, such as environmental and food safety standards. U.S. companies, meetings with Commissioners, Shanghai, China, July 25–26, 2013.

‡ The relevant rules for joint ventures are laid out in the Catalogue of Industries for Guiding Foreign Investment that was first introduced by the State Council in 1995 and last revised in 2011. The catalogue comprises over 450 industries. In nearly 100 of those industries, foreign investment is subject to ownership restrictions. About half of those restrictions require foreign investors to form joint ventures—equity, cooperative, or contractual—with Chinese partners. State Council, "Waishang touzi chanye zhidao mulu (2011 nian xiuding)" (Catalogue of Industries for Guiding Foreign Investment—2011 Revisions) (Beijing, China: 2011). http://www.gov.cn/fjfg/2011-12/29/content_2033089.htm.

commodities.¹¹⁹ And although restrictions on foreign investment have been relaxed, major investments still require approval from the Chinese government. In 2009, for instance, China invoked its new antitrust law to prevent Coca-Cola from purchasing the juice maker Huiyuan Juice.¹²⁰ Several sectors of China's economy are in fact off-limits to foreign companies; in the agriculture sector, foreign companies are prohibited from buying land; investing in the production of transgenic plant seeds; and constructing and operating large-scale wholesale markets for agricultural products.¹²¹

U.S. companies are also anxious about guarding their intellectual property in China. Barbara Glenn, vice president of Science and Regulatory Affairs at CropLife America, told the Commission that U.S. agrochemical and seed companies in China have encountered counterfeit goods as well as unauthorized misappropriation of trade secrets that are used to produce infringing products. These practices discourage U.S. agrochemical firms from investing in research and development in China and from deploying their most cutting-edge products there.¹²²

Further, U.S. developers of biotechnology are concerned about China's regulatory approval process. For the majority of these companies, which invest heavily in genetically modified seeds, China has become central to their business model, because their customers produce crops for export to China. At present, China only begins the approval process for a foreign biotechnology event when that event has already been approved in the exporting country. Ideally, both countries would conduct the approvals at the same time in order to expedite the process. This system of "asynchronous approvals" has become a pressing concern for U.S. agribusinesses.¹²³ Julius Schaaf, vice chairman of the U.S. Grains Council, told the Commission:

*Among the most important factors affecting the near term evolution of U.S. exports of corn is the regulatory treatment of biotechnology. . . . As the importance of biotech crops continues to increase globally, potential disruptions due to inconsistent and sometimes unpredictable national treatment have become a recurring concern. With regard to China, the asynchronous approval process for biotech events is of particular importance.*¹²⁴

China's Agribusinesses and Outbound Investment

In parallel to restricting market access for foreign agribusinesses, Beijing is fostering its own "state champions" to consolidate the agriculture sector. China's leading state-owned agribusiness, China National Cereals, Oils and Foodstuffs Corp., has extended its business from the grain trade to diverse activities along the value chain, from grain crushing to livestock production and beverage making. Meanwhile, quasi-private firms are expanding, especially in the livestock industry. These include Shuanghui Group, China's largest pork producer. The company began as a meat processing plant under a municipal government in Henan Province, in the interior of China. As recently as 2004, Shuanghui Group was taken over by a municipal branch of the government's State-Owned Asset Supervision and Administration Commission, an agency charged

with restructuring state-owned enterprises. In 2006, the government divested its interest in Shuanghui Group, selling to a consortium led by Goldman Sachs and CDH, a Chinese private equity fund. Nonetheless, Shuanghui's current chairman, Wan Long, has stayed in charge throughout this "privatization" process. He is a longtime member of China's Communist Party and National People's Congress. Through a management buyout in 2010, he has been able to exercise majority control over the company's shares and voting rights.¹²⁵ The Chinese private equity firm New Horizon Capital—cofounded by former premier Wen Jiabao's son Wen Yunsong—is a minority shareholder of Shuanghui.*¹²⁶

China's agribusinesses have pursued outbound investment in several countries and sectors (see figure 10). According to Dr. Gale, government policy influences these outbound investments. Of note is what Dr. Gale refers to as the "two markets, two resources" strategy, which "calls for control of overseas farm production, processing and logistics by Chinese companies for commodities that cannot be supplied domestically." The premise is that supply chain control will give Chinese companies a greater cost and price advantage in global markets. The "two markets, two resources" strategy is manifest in a plan, issued by the National Development and Reform Commission, that designates companies for overseas ventures. The two flagship companies chosen to shore up vegetable oil supplies, for instance, are Chongqing Grain Group and Beidahuang, an agribusiness company created by the Heilongjiang Province state farm system. These two companies have plans to invest in soybean and rapeseed production, processing, and logistics in Brazil, Russia, and Canada. Reportedly, Chongqing Grain Group has already begun importing soybeans from its Brazil project. Similarly, China National Cereals, Oils and Foodstuffs Corp. and other state-owned enterprises are to invest in soybean, cassava, rubber, and sugar projects. The strategy is financed by earmarked loans from state banks and public offerings in equity markets.¹²⁷ Tax breaks have supported agribusiness growth as well: Article 27 of China's Enterprise Income Tax Law provides that income generated from agriculture, forestry, husbandry, or fisheries may be exempted from the tax.¹²⁸

*New Horizon is a private equity group cofounded by Wen Yunsong, the only son of former premier Wen Jiabao. According to the *Financial Times*, Wen Yunsong "has been an active participant in Chinese investment since earning an MBA at Kellogg management school at Northwestern University in the US." New Horizon's first fund was incorporated in the Cayman Islands in 2005 with \$100 million. A primary contributor to that first fund was Temasek, Singapore's sovereign wealth fund. New Horizon closed its second fund in May 2007 with \$500 million. The *Financial Times* reported in January 2010 that New Horizon was close to raising \$1 billion from foreign investors for a fund that will invest in Chinese enterprises on the Mainland. Among the contributors to the latest fund are U.S. and European institutions. In addition to Shuanghui, New Horizon's equity investments include Xinjiang Goldwind, China's largest wind power equipment maker, and Zoomlion, China's second-largest construction machinery maker. Jamil Anderlini, "China Premier's Son Nears \$1bn Target for Fund," *Financial Times*, January 27, 2010, via Factiva database; U.S. Senate Committee on Agriculture, Nutrition, and Forestry, *Hearing on Smithfield and Beyond: Examining Foreign Purchases of American Food Companies*, testimony of Usha Haley, 113th Cong., 2nd sess., July 10, 2013.

Figure 10: Outbound Investments by Chinese Firms in the Food Sector, 2008–2012

Year	Month	Investor	Investment (\$ millions)	Subsector	Country	Type	Share Size	Partner/Target	Land Acquisition
2012	Dec.	Yili Industrial	\$210	Dairy	New Zealand	Equity	100%	Oceania Dairy	No
2012	Nov.	Shanghai Zhongfu	\$730	Sugar	Australia	Greenfield	—	—	Yes
2012	Sept.	Synutra	\$120	Dairy	France	Joint venture	—	Sodiaal	No
2012	Aug.	Complant	\$170	Sugar	Jamaica	Equity	100%	State-owned sugar plants	Yes
2012	May	Bright Foods	\$1,940	Consumer foods	Britain	Equity	60%	Weetabix	No
2012	Apr.	Shanghai Pengxin	\$170	Dairy	New Zealand	Equity	100%	Crafar Farms	Yes
2011	Aug.	Bright Foods	\$390	Consumer foods	Australia	Equity	75%	Manassen Foods	No
2011	July	COFCO	\$140	Sugar	Australia	Equity	99%	Tully Sugar	Yes
2011	June	Heilongjiang Beidahuang Nongken	\$1,510	Soybeans	Argentina	Joint venture	—	Cresud	Yes
2011	March	Chongqing Grain	\$1,410	Soybeans	Brazil	Greenfield	—	—	Yes
2010	Oct.	Sinochem	\$1,440	Agrochemicals	Israel	Equity	60%	Makhteshim-Agan	No
2009	July	CIC	\$370	Consumer foods	Britain	Equity	1%	Diageo	No
2008	June	China National Cereals, Oils and Foodstuffs	\$140	Pork	USA	Equity	5%	Smithfield Foods	No

Sources: “China Global Investment Tracker” (Washington, DC: Heritage Foundation, July 2013). <http://www.heritage.org/research/projects/china-global-investment-tracker-interactive-map>; various media sources.

In the United States, China’s outbound investments came into focus in June 2013, when Shuanghui International Holdings Limited, a subsidiary of Shuanghui Group, proposed to acquire Smithfield Foods Inc., the largest U.S. pork producer. The deal, valued at \$7.1 billion, is the largest-ever acquisition of a U.S. company by a Chinese company. It raises several critical issues. First, Smithfield is the market leader in the U.S. pork industry, and thus acts as a strategic node in the U.S. pork supply chain (see table 2).

Table 2: Top-Ten Pork Producers in the United States by Sows and Slaughtering Capacity

	Sows (2012)			Daily slaughter capacity (2009)	
	Sows	Market share		Slaughter capacity	Market share
1 Smithfield	862,000	28.4%	1 Smithfield	126,300	28.4%
2 Triumph	378,500	12.5%	2 Tyson	74,550	16.8%
3 Seaboard	217,000	7.1%	3 Swift	47,000	10.6%
4 Maschhoffs	196,000	6.4%	4 Excel	38,500	8.7%
5 Prestage Farms	165,000	5.4%	5 Hormel	37,000	8.3%
6 Iowa Select Farms	160,000	5.3%	6 Seaboard	19,200	4.3%
7 Pipestone System	145,000	4.8%	7 Excel	19,000	4.3%
8 Cargill	136,000	4.5%	8 Indiana Packing Co.	16,500	3.7%
9 Carthage System	103,500	3.4%	9 Hatfield	10,600	2.4%
10 AVMC Management Services	82,000	2.7%	10 J.H. Routh	4,200	0.9%
Other	593,800	19.5%	Other	52,075	11.7%
TOTAL	3,038,800		TOTAL	444,925	

Source: Top U.S. Pork Powerhouses, 2012. <http://www.agriculture.com/uploads/assets/promo/external/siteimages/PP2012.pdf>.

Second, the deal is not guaranteed to improve overall market access for U.S. pork in China. China is unlikely to abandon its policy of self-sufficient meat production. A more likely result is a closed market of intracompany trade between Shuanghui and Smithfield, combined with U.S. soybean and corn imports to feed China's hogs. Given Smithfield's massive output, it could supply the bulk of China's limited imports of U.S. pork. Indeed, Smithfield has developed a special relationship with Shuanghui over several years. At its plant in North Carolina, the largest of its kind in the world, Smithfield already switched over to ractopamine-free pork production at Shuanghui's request, prior to the proposed acquisition.¹²⁹ Meanwhile, other pork plants in the United States could still find it tough to export to China, either because the costs of complying with ractopamine restrictions are too high or because they do not enjoy the privileges of a firm owned by a Chinese parent company.

Third, even if China does import more U.S. pork, U.S. meat slaughterers and processors could lose out. Under the 12th Five-Year Plan (2011–2015), China has begun to consolidate and industrialize its meat industry. It is shutting down backyard farms in favor of large, vertically integrated operations. Although technically in private hands, Shuanghui is crucial to the government's efforts to enact this policy. The problem for Shuanghui is that it has built large industrial facilities to slaughter and process pork but lacks the hogs to fill them. Without direct control over hog farms, it sources meat from smaller producers, which leads to erratic quality and output. Importing pig carcasses from Smithfield appears to be an expedient solution. Shuanghui might use Smithfield mainly as a supplier of hog carcasses. Usha Haley told the U.S. Senate Committee on Agriculture, Nutrition, and Forestry:

Extrapolating from what has occurred in steel, paper, glass, auto parts and solar, the United States will become an exporter of the commodity of pork to China, and an importer of higher-value-added processed foods from China. ... Although U.S. exports to China of pork will rise, U.S. imports of processed foods from China will rise even faster, contributing to the trade deficit and loss of manufacturing

*capacity. . . . U.S. companies would be unable to compete domestically and in exports against a Shuanghui-Smithfield that does not pursue profits but is heavily subsidized and aims for industry domination.*¹³⁰

Fourth, while Smithfield could become a “raw material” supplier to Shuanghui, it would also transfer substantial intellectual property and branding power to its Chinese parent. Technology transfer* is a salient trend in China’s pork industry. Along with consolidation and capacity expansion, the Chinese government is seeking better technologies to improve the productivity of its livestock. According to *Delta Farm Press*, a respected agriculture publication in the United States, China is “capitalizing on decades of cutting-edge U.S. agricultural research.”¹³¹ Chinese producers are especially looking to forge uniform herds based on the most efficient breeds, like Duroc, Yorkshire, and Landrace.¹³² From 2002 to 2007, China imported a total of 13,000 head of swine; from 2008 to 2011, live swine imports totaled 39,000 head—15,000 in 2011 alone.¹³³ In 2002-2012, China increased its share of U.S. live swine exports from 5 percent to 51 percent.¹³⁴

Finally, an irony not lost on opponents of the Smithfield acquisition is that, if the situation were reversed, China’s laws on foreign acquisitions would allow the government to block the sale on economic and commercial grounds rather than just national security, as is the case with the U.S. laws. Stated Dr. Haley: “As the Chinese government views pork-processing as a strategically important industry, the country is unlikely to open this market to U.S. companies.”¹³⁵

Shuanghui and Smithfield submitted their proposed transaction for approval to the Committee on Foreign Investment in the United States (CFIUS) in June. On September 6, the companies received clearance from CFIUS.¹³⁶ The shareholders voted September 24 to approve the sale. The transaction is expected to become final toward the end of 2013.¹³⁷

Food Safety: China’s Penetration of the U.S. Food Chain

The Safety of U.S. Food Imports from China

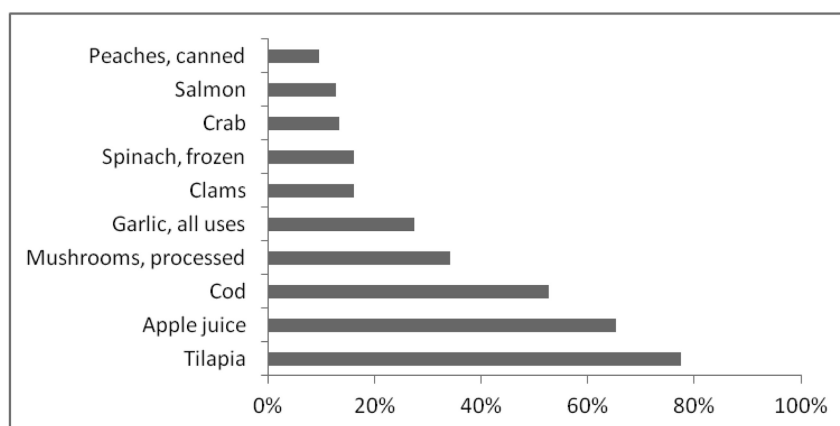
China’s WTO accession was primarily envisaged as an opportunity for U.S. exporters. But U.S. food imports from China have surged as well, part of a greater reliance on imported food by U.S. consumers.† Food imports from China tripled to 4.1 billion pounds

*Owing to its vertically integrated operations, Smithfield has played a pioneering role in modernizing breeding techniques for U.S. hog farms, competing head-on with dedicated genetics and breeding companies. The Smithfield Lean Generation Pork™ Program has been among the nation’s leading fresh pork programs, with dozens of branded items in its product line. Already in the 1990s, Smithfield acquired long-term rights for the NPD hog, a breeding line developed by National Pig Development Co., a British firm. In 2000, it bought out the U.S. branch of NPD, forming an in-house unit to undertake research and development. This intellectual property will be transferred to Shuanghui.

†The U.S. Government Accountability Office (GAO) reports that from 2000 through 2011, the percentage of food consumed in the United States that was imported rose from 9 percent to over 16 percent, and food imports increased by an average of 10 percent each year for seven years. “According to the U.S. Department of Agriculture’s Economic Research Service, the food groups with the highest share of imports are fresh fish and shellfish (85 percent in 2009) and fruits and nuts (38 percent in 2009).” U.S.-China Economic and Security Review Commission, *Hearing on China’s Agriculture Policy and U.S. Access to China’s Market*, testimony of Patty Lovera, April 25, 2013.

in 2001–2012 and have reached a high level of penetration for specific products (see figure 11). The majority of imports consists of consumer-oriented products. For these products, the United States accumulated a trade deficit of \$5 billion with China in 2008–2012. About a third of U.S. food imports from China are fresh, frozen, and processed fish and seafood products. Another 41 percent is comprised of fruits and vegetables, products that often compete directly with U.S. producers.¹³⁸

Figure 11: Imports from China as Share of U.S. Consumption
Four-Year Average, 2008–2011, share (%)



Sources: USDA, *GATS* [General Agreement on Trade in Services] *Database* (Washington, DC: Foreign Agricultural Service); USDA, *Vegetable and Melon Yearbook 2011* and *Fruit and Tree Nut Outlook* (Washington, DC: Economic Research Service, 2012); and U.S. National Fisheries Institute, “Top 10 Consumed Seafoods,” 2012, via U.S.-China Economic and Security Review Commission, *Hearing on China’s Agriculture Policy and U.S. Access to China’s Market*, testimony of Patty Lovera, April 25, 2013.

Imports from China also comprise a host of processed foods and food ingredients whose provenance may be less obvious to U.S. consumers. Food ingredients include xylitol, used as a sweetener in candy; ascorbic acid, a preservative; and vitamin ingredients, like folic acid and thiamine, frequently added to food products. Processed food imports, in turn, include vitamin C, candy, condiments, pet food, and pasta and baked goods, as well as food supplements and even gel capsules and nonactive pill binders for pharmaceuticals.¹³⁹

For the United States, these imports from China present significant food safety risks. Over the past decade, China’s major trade partners have repeatedly banned its food shipments on the basis of food safety. The earliest actions centered on seafood—the European Union and the FDA temporarily blocked imports of shrimp, crayfish, and crabmeat from China in 2002–2004 after discovering high residue levels of chloramphenicol, a broad spectrum antibiotic drug used to treat life-threatening infections in humans.¹⁴⁰ China’s food product safety garnered wider attention in 2007, when excessive antibiotic and pesticide residues led several countries, including South Korea, Japan, and the European Union, to impose renewed bans.¹⁴¹ The most imminent threat to the United States at the

time was pet food from China that contained a harmful industrial solvent, melamine. The FDA received reports of 17,000 pet illnesses, including 4,000 dog and cat deaths, believed to be the result of melamine contamination in imported Chinese gluten used to make pet food. Sixty million packages of melamine-contaminated pet food were recalled. That did not prevent a portion of melamine-contaminated products from ending up in other U.S. food products; there were reports that 56,000 hogs ate melamine-tainted pet food and were processed into pork, which was then sold at supermarkets.¹⁴² The melamine threat did not end there. In the fall of 2008, the FDA also recalled candy made by U.S. companies in China due to concerns of melamine contamination in Chinese milk.¹⁴³ The FDA in June 2012 and June 2013 twice extended bans on milk products from China, which included chocolate products.¹⁴⁴

China's Organic Food Exports to the United States

China has become a supplier of organic foods to the U.S. market. According to the USDA's National Organic Program, from 1995 to 2006, the value of organic food exported from China rose from \$300,000 to \$350 million annually. By 2010, 649 operations in China were certified by the USDA as meeting U.S. organic standards.¹⁴⁵ Ironically, these imports now include organic soybeans. Because organic livestock producers in the United States cannot use the genetically modified soybeans harvested at home, they are turning to China's nongenetically modified beans instead.¹⁴⁶

Organic foods are generally characterized by methods of farming that do not involve synthetic inputs such as chemical fertilizers. In China bureaucratic infighting has led to the emergence of two competing standards for organic food. The Ministry of Agriculture has promoted a less rigorous "green food" standard since the early 1990s, which comprises foods that have very low levels of chemical residues. The Environment Ministry, in turn, adheres to a more rigorous "organic food" standard, which requires that food products contain no chemical residues at all. To encourage organic food exports, China has lobbied to make these standards equivalent with those of developed country markets like the United States, the European Union, and Japan. At present, however, neither standard has achieved international recognition.¹⁴⁷

The USDA issues its own approvals for organic food produced in China. It does so by accrediting private, third-party certifiers. Once these certifiers approve a Chinese production facility, that facility's products are "USDA certified" and can be sourced by Whole Foods and other organic food retailers in the United States. Some experts assert that the USDA has exhibited a lack of due diligence in issuing certain approvals. USDA officials three years ago visited China to conduct an audit of four of the ten companies it had accredited as organic food certifiers. The officials reported that conditions "pose challenging oversight duties and responsibilities for certifying agents operating in China." They

**China's Organic Food Exports to the United States—
Continued**

discovered, for instance, that a certifier had used Chinese government employees to inspect state-controlled farms, suggesting a direct conflict of interest among different actors in China's government.¹⁴⁸

Inadequate Food Safety Regulation in China

Current regulation of food entering the United States from China is insufficient. First of all, the Chinese government's own food safety regulation is inadequate. Multiple agencies oversee the food safety regulation process, including the Ministry of Health; the Ministry of Agriculture; the Ministry of Commerce; and importantly, the General Administration of Quality Supervision, Inspection, and Quarantine, which has separate jurisdiction over customs inspections. In the United States, there is no separate agency for customs. The various Chinese agencies also have central and local branches, forming a fragmented and decentralized system of regulation.¹⁴⁹

The Chinese government in 2009 introduced a comprehensive Food Safety Law to establish a modern framework for food safety regulation. The law was partially successful in handing more oversight power to the Ministry of Health and creating an intraministerial working group. This regulatory consolidation was reinforced in March 2013, when the government created a new China Food and Drug Administration, which took on certain responsibilities from the State Food and Drug Administration; the Ministry of Agriculture; the State Council's Food Safety Committee; and the General Administration of Quality Supervision, Inspection, and Quarantine.¹⁵⁰ The 2009 law also made progress in specifying guidelines for hazard analysis and risk management, in order to track food safety "from farm to plate."¹⁵¹ During its trip to China, the Commission met with officials from the China Food and Drug Administration to learn more about their activities.¹⁵²

However, it is uncertain whether these reforms will make a substantial difference. The consolidation of agencies has stopped short of full integration. For instance, farm-level production and slaughter is still overseen by the Ministry of Agriculture.* Further, the China Food and Drug Administration has just a few hundred staff at the central government level in charge of overseeing tens of thousands of less-capable inspectors in local agencies.¹⁵³ Due to extreme fragmentation of production—with an estimated 450,000 companies in food-processing alone—traceability of food products remains a stiff task.¹⁵⁴

*The China Food and Drug Administration will apparently handle the safety of food production as well as distribution, in contrast to its predecessor, the State Food and Drug Administration, which supposedly handled only safety in the food service industry. In spite of this regulatory integration, the General Administration of Quality Supervision, Inspection, and Quarantine Department remains responsible for customs inspections, while the Ministry of Agriculture remains in charge of overseeing "primary" production, including livestock slaughter. Brady Sidwell (vice president, corporate development, OSI Group), e-mail to Commission staff, July 31, 2013.

Academic research has shown that the 2009 Food Safety Law has done little so far to hold producers and officials accountable. According to John Balzano of Yale Law School, Chinese consumers still have difficulty filing coordinated lawsuits against food companies, and the courts rarely investigate public officials.¹⁵⁵ Other experts have argued that illegal food production occurs in China because local officials are responsible for both economic growth and food safety and, in many cases, prioritize the former.¹⁵⁶ As a result, safe and high-quality food production is not consistently rewarded, while unsafe and low-quality production is not consistently punished.¹⁵⁷ The Chinese government has resorted instead to public displays of enforcing food safety rules, inspecting food facilities, and punishing people connected with tainted food, especially in high-profile cases. In July 2007, for example, the former head of the State Food and Drug Administration was executed on conviction of receiving \$850,000 in bribes.¹⁵⁸ The melamine scandal in 2009 led the authorities to close down half the country's dairies.¹⁵⁹ Two years later, a concerted crackdown on food safety violations resulted in 2,000 arrests and 4,900 businesses being closed. These actions were widely reported in the state media.¹⁶⁰

Problems with U.S. Food Safety Inspection

In the absence of effective regulation by the Chinese government, U.S. consumers depend on U.S. food safety inspectors to do their jobs. And yet, there are numerous problems with U.S. food regulation. The system is fragmented, underfunded, and heavily reliant on third-party verification—structural flaws documented through extensive congressional hearings and government reports.¹⁶¹ The FDA and the USDA divide up food safety inspection by product group, with most seafood, horticulture, and processed foods coming under the jurisdiction of the FDA. Patty Lovera of Food & Water Watch testified: “The USDA is in charge of meat and poultry. The FDA is in charge of basically everything else. We spend a lot of time in this context thinking about the FDA because those are the products that are coming in at this point from China.”¹⁶²

Relative to its broad oversight role, the FDA's capabilities are limited. At the Commission's 2008 hearing on food safety in the seafood industry, the FDA's director of the Center for Food Safety and Applied Nutrition acknowledged that the surge of Chinese food imports has “outstretched and outgrown the regulatory system for imports in the [United States].”¹⁶³ Based on expert testimony received by the Commission in 2008 and 2013, the FDA inspects less than 2 percent of the food that passes through U.S. borders.¹⁶⁴ Inspection rates in Japan and the European Union are several times higher.¹⁶⁵ Nor does the agency always act forcefully when it discovers a problem; shipments are turned away by the FDA but not destroyed, so that products can potentially reenter the country through another port, a phenomenon known as “port-shopping.”¹⁶⁶

According to Ms. Lovera, weak regulation at the border is compounded in China's case by a lack of cooperation between the two countries' authorities. During the melamine-tainted pet food crisis in 2007, for example, it took the FDA one month to identify and communicate with its regulatory counterparts in China.¹⁶⁷ A USDA Economic Research Service report from 2009 asserts that the Chi-

nese government guards the food safety data it collects, making it difficult to impartially evaluate China's food safety performance.¹⁶⁸ Kelli A. Giannattasio, the FDA's deputy country director in China, told the Commission that some progress has been made since then to widen channels of communication. Nonetheless, China's balkanized system of regulation, in which food production and distribution is overseen by different agencies at the central and local levels, has made it difficult to identify the right counterparties once a risk is identified.¹⁶⁹

The FDA has made substantial efforts to improve its border inspections. These were outlined by the FDA's associate director for Global Operations and Policy, Steven M. Solomon, at a May 2013 hearing of the Congressional-Executive Commission on China. Mr. Solomon pointed out that the 2011 Food Safety Modernization Act, the most wide-reaching reform of U.S. food safety laws in 70 years, lays the foundation for a more prevention-based approach to regulating imports. He also noted that, while the FDA does not "physically inspect all imports" that enter the country, it does "electronically screen all imports using an automated risk-based system to determine if shipments meet identified criteria for physical examination or other review." To enhance its ability to target high-risk products, the agency recently developed the Predictive Risk-based Evaluation for Dynamic Import Compliance Targeting application, a screening system that uses intelligence from many sources to provide the entry reviewer with risk scores on every import line.¹⁷⁰

The FDA is also trying to involve U.S. importers more directly in food safety oversight. Under the Foreign Supplier Verification Program, introduced in August, food importers in the United States must assess which types of safety risks are posed by the food they are importing and obtain documentation from the exporter that show how those risks are being mitigated. Importers will be required to conduct or obtain results of annual on-site audits of the exporter's facility. One loophole in the new regulations is that they do not apply to aquaculture products, one of the U.S.'s top imports from China. Aquaculture products are subject only to the less stringent Hazard Analysis and Critical Control Points program, under which importers are not required to retain detailed documentation to show how their foreign suppliers are controlling risks.¹⁷¹

To supplement the efforts to improve food regulation at home, U.S. food safety inspectors have attempted to step up their on-the-ground presence in China. According to Ms. Lovera, the FDA visited just 46 food firms on the Mainland in 2001–2008—less than six a year.¹⁷² Since then, the agency has devoted more resources to its food safety oversight in China. Initial budget increases were enacted in 2009. The fiscal year 2013 Continuing Resolution added \$10 million to the FDA's base to fund the addition of seven food and nine drug inspectors permanently posted in China.¹⁷³ Under a memorandum of agreement that the U.S. Department of Health and Human Services signed with China in December 2007, the Chinese government permitted more FDA inspectors to enter the country and allowed the FDA to open offices in Beijing, Shanghai, and Guangzhou.¹⁷⁴ Commission witness William Westman, who served as agricultural attaché to the U.S. embassy in Beijing in the mid-2000s, noted that 11 FDA attachés were installed at the various

U.S. consulates by the end of his tenure.¹⁷⁵ According to the FDA's fiscal-year 2013 appropriations report, its inspections in China increased from 16 in 2009 to 55 in 2011, a tangible improvement.¹⁷⁶

Still, U.S. food safety regulation in China has many shortcomings. Even with additional inspectors on the Mainland, the agency may find it difficult to monitor China's vast and fragmented food processing industry.¹⁷⁷ Regulatory barriers imposed by Chinese authorities have added to the problem. Stated Ms. Giannatasio:

*Currently, our main challenge stems from delays in issuance of visas for additional FDA staff in China. . . . To date, China's Ministry of Foreign Affairs has not issued diplomatic visas that would enable the deployment of these inspectors to China on a full-time basis. In order to continue its inspection efforts, FDA's China Office is working with FDA's Office of Regulatory Affairs to deploy inspectors on temporary assignment to carry out the inspections FDA needs to do in China.*¹⁷⁸

Another impediment is China's reluctance to grant access to plants. Under the memorandum of agreement signed with the United States in 2007, the Chinese government promises FDA inspectors better access to Chinese facilities but reserves the right to control their movements and access.¹⁷⁹ These restrictions appear to still be in place—during August 2012 visits to Chinese processing plants that export pet treats to the United States, U.S. inspectors were not permitted to collect samples for independent analysis.¹⁸⁰

The United States and China are working together to improve food safety. Examples of collaboration include:

- The USDA and the FDA, along with major U.S. companies, participate in the China State Council's annual China International Food Safety and Quality Conference and Expo, inaugurated in 2007.¹⁸¹
- A working group on economically motivated adulteration meets on a regular basis by video, linking Washington-based experts with the China Food and Drug Administration's key decision-makers.¹⁸²
- In November 2012 and May 2013, the FDA and China's General Administration of Quality Supervision, Inspection and Quarantine held workshops for members of Chinese industry to address concerns regarding aquaculture practices for fish farms. These workshops have significantly enhanced the FDA's understanding of China's oversight system for aquaculture products and have provided Chinese industry with a clearer understanding of the FDA's requirements and practices.¹⁸³
- The China-U.S. Plan of Strategic Cooperation in Agriculture (2012–2017), signed in February 2012 by the USDA and China's Ministry of Agriculture, states that the two countries will develop “mutually beneficial international standards on food safety”; ensure implementation of science-based laws, regulations, policies, and standards; ensure transparency of the regulatory decision-making process and food safety initiatives; and

improve institutions and working mechanisms of emergency response. To this end, both sides “propose to more actively engage” in bilateral and international meetings.¹⁸⁴

Implications for the United States

China is now the top market for U.S. agricultural exports, but not everyone in the U.S. farming community is benefitting equally. China’s imports from the United States have been concentrated in bulk commodities, a trade pattern quite different from U.S. agricultural exports to the rest of the world. U.S. soybean exporters have gained disproportionately, to the extent that they have become quite dependent on the Chinese market. A problem for all bulk commodity exporters to China is that nation’s policy of using taxes and subsidies, in combination with stockpiling and state trading, to control commodity trade flows. Therefore, much of the value-added processing of commodities is taking place in China rather than in the United States, which is hurting U.S. manufacturers and contributing to U.S. unemployment.

Among consumer foods, U.S. meat products have the most to gain in China. Chinese consumers are shifting to a higher-priced, protein-heavy diet, while China’s domestic livestock industry is reaching its capacity limits. The United States enjoys a comparative advantage in resources, productivity, and quality for meat production. And yet, U.S. beef and pork producers have been affected by China’s heavy subsidization of domestic production and, even more, by its stringent sanitary barriers. Many sanitary measures appear designed either to protect domestic producers or to shift the blame for domestic food safety lapses onto foreign products. A complicating factor for the United States is that China is not alone in abusing health and safety measures. Some of the U.S.’s best beef export markets have been slow to lift BSE-related restrictions. Japan, South Korea, and Taiwan will only accept U.S. beef from animals less than 30 months of age.¹⁸⁵ The European Union and Taiwan ban imports of U.S. pork treated with ractopamine.¹⁸⁶ By the same token, the intensifying competition from other agricultural exporters, such as Australia, Brazil, and Argentina, allows China to hedge its import strategy in ways that can damage U.S. interests.¹⁸⁷

A key challenge for the United States is to treat China as a major market rather than a developing country in need of development assistance. The United States and China are engaging in extensive bilateral cooperation in agriculture. The USDA has signed a Plan of Strategic Cooperation with its Chinese counterparts on agricultural science, trade, and education. U.S. universities and companies are also actively engaged in China. But this outreach is not always conducive to improving market access for U.S. exporters and foreign investors, who view China as a strategic market for their business.

Another challenge is to reconcile different interests in U.S. trade policy. In regional terms, Iowa has profited the most from trade with China, given its extensive production of crops to feed China’s livestock. The Iowa state government has been very proactive in fostering bilateral diplomacy. Conversely, specialty crop growers in

the Pacific Northwest, beef producers in the Central Plains, and cotton and poultry producers in the South have been more critical of the evolving relationship. There is also a need to recognize the actors in China that might be for and against trade with the United States. For example, the Ministry of Agriculture, which prioritizes the interests of Chinese farmers, and the Ministry of Commerce, which seeks to implement China's WTO commitments, do not always share common interests.

The case of poultry illustrates the tradeoffs of negotiating bilateral trade deals. U.S. poultry producers have been the unfortunate targets of Chinese retaliation in a broader trade dispute involving auto parts and tires. U.S. government efforts to support domestic producers and protect consumers in the food sector have not always achieved to their intended effects and, in some cases, have worked at cross purposes. Food safety advocates argue that allowing China to export processed poultry to the United States is too high a price to pay for greasing the wheels of bilateral trade deals.

WTO accession has allowed China to export vast amounts of fruits, vegetables, fish, and processed foods to the United States, causing health scares and overstressing the U.S. food inspection regime. In the future, the U.S. government will have to strike a balance between expanding a rules-based trading regime that favors exporters and taking action to block Chinese imports if safety cannot be assured. It will also need to enhance the capacities of the USDA and the FDA to screen food imports at the border and on the ground in China. That will require better cooperation from the Chinese authorities—the U.S. State Department last October formally notified the Chinese Ministry of Foreign Affairs about obtaining visas for additional FDA inspectors, but as of September 2013, the visas had not been granted.¹⁸⁸

The proposed acquisition of Smithfield by a Chinese pork producer, Shuanghui, was approved by CFIUS and by Smithfield's shareholders in September. The case illustrates that Chinese companies can make major acquisitions of U.S. companies in the agriculture sector without being blocked on national security grounds. At the same time, the case elicits important questions about U.S. policy toward foreign investors from China. Smithfield is the largest pork producer in the United States and hence a strategic supplier of food to U.S. consumers. While Shuanghui is a quasi-private company, it maintains strategic ties to the Chinese government. The case also has a bearing on intellectual property protection, net economic benefits, and reciprocal market access.

Conclusions

- For the past three years, China has been the largest export market for U.S. agricultural goods. However, trade is far from free, and enormous opportunities are being withheld. China's WTO accession has not been as productive to the United States as initially expected. In contrast to U.S. agricultural exports to the rest of the world, most U.S. exports to China are bulk commodities, particularly raw soybeans that supply China's outsized livestock sector. Conversely, processed commodities, meat products,

consumer foods, and other higher value-added products have not kept pace with the overall growth in bilateral trade.

- Since the 1980s, China has developed into the world's largest agricultural economy, producing a fifth of the world's grains, a quarter of its meat, and half of its vegetables. But demand in China is beginning to outstrip supply. As more people move to cities and earn higher incomes, China's population is demanding safer food and a more diverse, protein-rich diet at an affordable cost. The United States is well-positioned to meet that demand. U.S. farmers enjoy a comparative advantage in resources, productivity, and quality, particularly in meat production.
- China's agriculture policy favors domestic production over imports. China maintains ambitious self-sufficiency targets that are unsustainable and unjustifiable in terms of food security. This policy is now being challenged by the decline in China's farm labor surplus, deteriorating land and resource endowments, and fragmented producer and land use systems. A related problem is that efforts to modernize agriculture conflict with rural welfare aims. Millions of rural migrants continue to rely on farmland and smallholder agriculture for insurance in the absence of a functioning welfare state.
- China has failed to fully perform its obligations under the WTO. It has erected a series of nontariff barriers that include state trading; excessive domestic subsidies and stockpiling of commodities; discriminatory taxes; uncalled-for antidumping duties; and slow approvals of biotechnology applications for U.S. crops. Damaging to U.S. interests as well are sanitary and phytosanitary restrictions, especially BSE-based bans on beef and zero tolerance for ractopamine in pork. Although China has significantly lowered its tariffs and increased its agricultural imports since accession, numerous trade restrictions remain in place.
- U.S. companies, universities, and government agencies are helping China to improve the quantity and quality of its food output. In a sign of deepening bilateral ties, the United States and China signed the first U.S.-China Plan of Strategic Cooperation in Agriculture (2012–2017) in February 2012, and in March of that year the largest-ever U.S. agricultural trade mission visited China. However, U.S. companies operating in China are hamstrung by regulatory uncertainty, restricted market access, and weak intellectual property enforcement.
- China is fostering globally competitive agribusinesses, in the process becoming an active acquirer of agricultural assets overseas. In June 2013, China's largest pork producer, Shuanghui, proposed a \$7.1 billion acquisition of Smithfield, the leading pork producer in the United States. While the deal has been approved by CFIUS and Smithfield's shareholders, it raises critical issues regarding net economic benefits, intellectual property, reciprocal market access, and the treatment of quasi-private Chinese companies that maintain links to the Chinese government.
- China accounts for a large share of the fruits, vegetables, fish, and processed foods that Americans consume, but the United States has little assurance that the food imports coming into the

United States from China are safe. China's own food safety regulation is still ineffective, in spite of recent efforts to consolidate agencies and improve legislation. U.S. consumers rely on U.S. food safety inspectors to do their jobs, but U.S. regulation is also fragmented and underfunded. U.S. regulators have increased their presence within China but have struggled to obtain work visas and to gain access to food production facilities. Although the United States does not permit raw meat imports from China, the USDA has granted equivalence status to Chinese poultry processors, which will permit them to process poultry raised in the United States and Canada and ship it to the United States.

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RECOMMENDATIONS

Trends in Chinese Investment in the United States

The Commission recommends:

- Congress assess the extent to which existing laws provide for inadequate or ineffective remedies against the anticompetitive actions of Chinese state-owned or state-invested enterprises operating in the U.S. market. Additional remedies may be required to account for the fact that these enterprises may not be operating based on commercial considerations.
- Congress assess whether to amend the Committee on Foreign Investment in the United States (CFIUS) statute to allow review of greenfield investments for threats to U.S. national security.
- Congress direct the Department of Commerce to develop a comprehensive ongoing inventory of Chinese foreign direct investment (FDI) in the United States and, on an annual basis, update the inventory. The inventory should identify the ownership structure of the entity engaging in the investment. In preparing the inventory, the department should call on private sector entities engaged in monitoring Chinese investments in the United States and such other entities to ensure that its report is complete and accurate. The department should prepare a comprehensive report to Congress on an annual basis identifying the FDI by Chinese entities that were made in the previous calendar year. In its report, the department should indicate those investments that received any assistance from the “Select USA” program. The department should also identify, on an ongoing basis, the lines of commerce that each of the investments are engaged in.

Governance and Accountability in China’s Financial System

The Commission recommends:

- Congress direct the Administration to press China for more cooperation with the international community in order to address the global economic risks of unregulated and underregulated shadow banking and ask the Department of the Treasury to provide an annual report to Congress on the risks of shadow banking
- Congress direct the Administration, in any bilateral investment treaty negotiations, to make fair and equitable market access and treatment for financial services firms a priority.
- Congress direct the Administration to assist the Securities and Exchange Commission (SEC) and the Public Company Accounting Oversight Board by encouraging China to develop better reg-

ulatory oversight enforcement capabilities and more transparent markets, during annual and biannual bilateral dialogues, as well as multilateral dialogues.

- Congress empower the SEC to set minimum standards for companies listing and maintaining listings on U.S. exchanges and enable the SEC to directly delist foreign companies not in compliance with these standards.

China's Agriculture Policy, Food Regulation, and the U.S.-China Agriculture Trade

The Commission recommends:

- Congress monitor the implementation of the U.S.-China Plan of Strategic Cooperation in Agriculture (2012–2017) to ensure that U.S. funding is being allocated in such a way as to improve the safety, sustainability, efficiency, and security of food production in China and the United States.
- Congress require the U.S. Department of Agriculture (USDA) and the U.S. Trade Representative (USTR) to conduct a comprehensive review of China's agricultural subsidies, discriminatory taxes, state trading, and procurement practices; take account of the damages incurred by U.S. farmers and downstream industries; and suggest appropriate remedies.
- Congress urge the Secretary of Agriculture to engage, as part of the Joint Committee on Commerce and Trade and the Strategic and Economic Dialogue, with his/her Chinese counterparts to address those Chinese policies and practices that limit U.S. exports of value-added products.
- Congress direct the Interagency Trade Enforcement Center (ITEC) to conduct a review of the selective use of value added tax (VAT) rebates by China and determine whether they have a trade-distorting effect and whether the selective use of VAT rebates is consistent with the original intent of the General Agreement on Tariffs and Trade (GATT) provision allowing for VAT rebates. The ITEC should prepare a report for the U.S. Trade Representative and the relevant Committees of jurisdiction and identify what steps should be taken to address any GATT inconsistencies, should they be found.
- Congress direct the USDA to negotiate with China to synchronize approvals of biotechnology to ensure stable and predictable market access for U.S. seed companies and crop growers in the Chinese market.
- Congress require that the USDA prepare an annual report on competitive factors in the pork industry. In preparing such reports, the department shall evaluate the impact, if any, of the recent purchase of Smithfield Foods on the ability of other U.S. producers to export pork products to China. In addition, the report shall identify any changing pricing structures throughout the pork production chain to determine whether there is price or profit suppression as a result of the Smithfield transaction.

- Congress direct the USDA to exercise extreme caution in negotiating equivalency status for Chinese exports of processed poultry using Chinese-origin birds. Congress should also increase its support of USDA's Food Safety and Inspection Service in its role as protector of meat and poultry food safety so that the United States serves as a world model for high-quality, science-based regulations.
- Congress ensure that the Food and Drug Administration makes it a priority to increase the number of physical inspections of Chinese food imports at the border; to increase the rigor of those inspections to include testing for pathogens and chemical, pesticide, and drug residues, and processed food ingredients; and to conduct more frequent and thorough inspections in food facilities in China. Congress should also urge the USDA to permanently assign inspection personnel to China so that the exporting plants receive regular visits by USDA inspectors.
- Congress require the Secretary of Agriculture to prepare a report to Congress identifying those organic food products being imported into the United States from China. The report should include a comprehensive evaluation of the different methodologies employed by the United States and China to certify that a product is organic and what steps, if any, are being taken to harmonize any discrepancies that might exist.
- Congress evaluate whether a requirement that U.S. food importers purchase insurance against food-borne illnesses and pathogens from Chinese imports would improve food safety. Such a program would involve private sector risk insurance with insurance companies evaluating the safety of various sources and charging risk-based premiums based on the methods employed by Chinese exporters to address food-borne illnesses and pathogens.