



Economic Report

Office of Regulatory Policy

Agricultural and Economic Policy Team

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Summary

In April 2016, a U.S. delegation from the U.S. Department of Agriculture and FCA traveled to China under the auspices of the Scientific Cooperation Exchange Program (SCEP). The team met with counterparts at Chinese economic research institutions to discuss farm subsidies, price supports, crop insurance and agricultural credit policies. Chinese officials explained the general thrust of reforms currently underway. The trip successfully met the objectives of the U.S.-China SCEP by exchanging information about each country's policies and developing relationships for future collaboration.

Three important changes underway in China could affect U.S. farmers and Farm Credit System borrowers. These are: (1) an evolving agricultural policy regime, which is shifting from minimum prices that have resulted in stock buildup to direct subsidies designed to be less market distortive, (2) an information system that is a "work-in-progress," and (3) a relationship with the United States that is in flux, with both countries wary of each other which limits cooperation at the governmental level.

Farm Credit System borrowers (and lenders) need to consider both the downside risk and upside potential that accompanies one of the largest exports markets for U.S. agriculture.

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Agricultural Policy Change in China: Trip Overview by U.S. Delegation

A U.S. delegation from the U.S. Department of Agriculture and FCA traveled to China in April 2016 under the auspices of the Scientific Cooperation Exchange Program (SCEP), which was established in 1978 by USDA and China's Ministry of Agriculture (MOA). SCEP's objectives are to promote U.S. agricultural priorities, encourage long-term cooperation, create a positive atmosphere for trade, and enhance overall relationships between the U.S. and China. For more than 35 years, the program has facilitated exchanges for more than 2,100 participants on topics such as agricultural policy, food safety and security, animal and plant health, and agricultural biotechnology and emerging technologies. China is a top market for U.S. agricultural exports and a source of market volatility and risk for the U.S. farm sector.

The objectives of this trip were: (1) to learn about China's plans for farmer support policies in the next 5 years; (2) explain U.S. experience in supporting farmers and current U.S. farm programs; and (3) exchange views with Chinese colleagues on best practices for supporting farmers.

The team spoke with ministry officials in Beijing, attended MOA's Agricultural Outlook Conference, and visited government officials in the agricultural provinces of Shandong and Sichuan. See box below.

The first portion of this report summarizes three observations and changes underway in China that could affect U.S. farmers and Farm Credit System borrowers. These changes include China's farm policy, its information system, and its relationship with the United States. The second portion of the report describes the evolving policy in China and trip highlights.

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Itinerary:

- April 16 Team meets in China.
- April 18 Shandong Department of Agriculture.
- April 19 USDA Office of Agricultural Affairs, U.S. Embassy.
- April 20 Ministry of Agriculture (MOA), Research Center for Rural Economy; MOA, Agricultural Trade Promotion Center.
- April 21 Chinese Academy of Ag. Sciences, Agricultural Risk Management Center; MOA (Gale, Effland and USDA Chief Economist); China National Grain and Oils Information Center (Gale only).
- April 22 MOA Agricultural Outlook Meeting.
- April 23 Renmin University School of Agriculture and Rural Development, lecture on U.S. agricultural policy by Effland, O'Donoghue, and Shields; MOA Agricultural Outlook Meeting (Gale presentation with discussion support from Shields).
- April 26 Sichuan Province Department of Agriculture; Chengdu USDA Ag. Trade Office.
- April 27 Chunbo Organic Farm, Miyun County, Beijing.
- April 28 U.S. Grains Council, depart for U.S.

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Three Observations on China's Agriculture

The trip was a rare opportunity for U.S. government economists to visit China, meet Chinese counterparts, and learn more about China—one of the top U.S. agricultural trading partners and a key player in global markets. The trip also provided an opportunity to observe major changes occurring in China, three of which are described below.

1. Food security remains paramount as China's farm policy evolves.

China has been concerned about food security throughout its history, and production of food and self-sufficiency is at the top of the country's priorities. China's recent food security strategy cites a necessary role for imported food commodities, but it also ensures that domestic supplies retain a dominant role while imports serve only a supplementary role. This dichotomy creates a tension between letting market forces work and activating policy levers to control domestic production and prices. As a result, changes in policy can disrupt trade, leading to global price volatility that can affect the U.S. farm sector.

China studies policies of the United States and other countries for guidance in forming their own policies. It is an open question whether the country will link farm payments to plantings, which would provide better risk management to farmers but would increase market distortions via planting incentives. The United States has struggled with this same question in its farm bill debates. One official commented that China might want to raise income through insurance, which would create unfortunate consequences such as producing in areas not suitable for intensive agriculture. This could have large negative effects on global prices and the environment.

2. China's information system is a work-in-progress.

In China, government statistics can be more like goals than facts, as officials at all levels often have incentives to misreport data and/or withhold it from public release. The classic problem is grain stocks. No one really knows the actual number, which creates uncertainty for global markets. Nevertheless, the country continues to increase the quality of its data. For example, a statistician with China's National Bureau of Statistics who visited USDA's National Agricultural Statistics Service (NASS) in 2014 is now in charge of China's third agricultural census to be conducted in early 2017. He redesigned the questionnaire based on what he learned during his NASS visit. The success of this census is of high importance because recent structural changes in China's agriculture have probably affected the validity of statistical sampling frames. Some are concerned that China will not devote enough resources for adequately administering the survey and analyzing the data. In general, China's information system is a work-in-progress.

The trip coincided with the Ministry of Agriculture's annual outlook meeting hosted by the Chinese Academy of Agricultural Sciences (CAAS). For the last three years, China's Ministry of Agriculture has held an outlook meeting that is much like USDA's annual outlook forum. CAAS also distributed at the meeting its monthly Agricultural Outlook magazine with articles on commodities, policies and special topics that was developed in consultation with USDA/ERS about 15 years ago. More and better information released at such conferences and elsewhere will make markets work more efficiently and should help U.S. producers adjust to changes in China's agricultural sector and increase demand for U.S. products.

3. China's relationship with the United States is in flux.

U.S. wheat and cotton industries are pressing for a WTO case against China, and there is a chance that the United States can influence China's agriculture and trade policy so it is less market-distorting. However, both countries are wary of each other, and there are limits to cooperation at the governmental level. For future policy change, unintended consequences for China (such as very high budget costs) might be sufficient to exact change that is favorable to both countries without straining relations.

China's Evolving Agricultural Support Program

China has a brief history of supporting farmers, and its policy is rapidly evolving. In 2004, China began a program of direct payments to farmers, a subsidy for agricultural machinery purchases and elimination of taxes on farmers, soon after its accession to the WTO in 2001. For food security purposes, China added minimum prices for rice and wheat, plus “temporary reserve” stockpiling of corn, soybeans, rapeseed, cotton, and sugar. China also has one of the largest agricultural insurance programs in the world, just a few years after subsidized agricultural insurance was launched nationwide in 2008. There are dozens of other small subsidies mostly aimed at improving productivity and reducing risks, including subsidies for improved livestock breeds, subsidies for livestock immunizations and veterinary staff, construction of “high standard fields” and “general agricultural development,” an annual wheat-spraying campaign, soil testing, model farming districts to demonstrate environmentally friendly techniques and “smart” farming, and fishing boatsubsidies.

While China has a large, sprawling agricultural support program, authorities are concerned that subsidies have become a kind of rural entitlement that are not well-targeted to achieve objectives. Moreover, the numerous payments generate large administrative costs for officials who need to track multiple streams of payments, and the total annual costs now exceed \$35 billion. Worse, price supports have prevented Chinese commodity prices from aligning with international prices since global farm prices began falling in 2013. Chinese production costs have risen at a rapid pace, so officials fear the consequences for farm income and production incentives if prices are allowed to fall. A large gap between Chinese support prices and international prices has caused officials to purchase large proportions of domestic crops while imports flow into the Chinese market at unprecedented rates. Storage costs have mushroomed, and Chinese officials are well aware of the adverse market impacts on domestic and international markets caused by the country's policies.

China is now in the midst of the most extensive agricultural reforms since implementation of its “household responsibility system” during 1978-84. Officials have been abandoning support prices for one commodity after another since 2014. The end of the corn temporary reserve was announced in March, just before our trip. The “temporary reserve” for corn will be abandoned and replaced with unspecified subsidies for corn producers. This reflects a new strategy of “separating subsidies from price” designed to allow market supply and demand to determine prices while farmers receive support via payments. The final design is yet to be determined, and its eventual effectiveness will hinge in part on whether payments are tied to historical or current plantings. We relayed the U.S. experience with this same decision over many years of farm bill debates.

Officials we spoke with recognize that the fragmented, small-scale structure of farming in China is outdated, results in low productivity, high unit costs and needs to be replaced with a structure of “appropriate-scale” farm businesses operated by “professional farmers.” The government hopes that transition to “new-style” farmers—“family farms,” larger-scale grain producers, cooperatives, company-operated farms and other new types of farming operations—will raise productivity and reduce unit costs, allowing farmers to become internationally competitive while bringing an income large enough to achieve parity with potential off-farm wages. Strategies for the 2016-2020 five-year plan and subsidy programs aim to promote “agricultural modernization,” which includes mechanization, consolidation of collectively owned land, provision of training, credit and other services, and upgrades of fields, irrigation, and roads.

On top of these problems, Chinese officials have now acknowledged that maximizing production during the last three decades has led to severe environmental impacts—excessive use of chemical fertilizer and pesticide, degraded soil quality, depleted aquifers, and cultivation of polluted land or land vulnerable to erosion and drought.

Subsidy overhaul underway

The package of subsidies introduced in 2004 is being overhauled to address these issues. In 2015, a program to combine three subsidies (direct payment to grain producers, improved seed subsidy, and general input subsidy) into a single “support and protection payment” was piloted in five provinces. In April 2016 (during our trip), the Ministry of Agriculture announced that this subsidy reform would be spread nationwide in 2016. We were briefed about the reform in our meetings.

A portion of funds for the new “support and protection payment” (20% of the “general input subsidy” funds and any new increases in subsidy funds) will be earmarked for support of “new-style” farmers through developing credit programs and support services. But based on our meetings, it remains unclear exactly how these funds will be administered. Presumably, the direct payment, seed subsidy, and 80% of general input subsidy will continue to be paid to small-scale landholders. These payments are to be used for activities that restore land productivity, such as plowing straw/stalks into fields to build organic matter (rather than burning the residue), deep-plowing of fields to break through hard-pan layers, and use of animal manure rather than chemical fertilizers. (Subsidies are distributed as cash directly to farmers through electronic bank accounts; we presume this practice will continue.)

It is unlikely that officials have determined how to implement these subsidy reforms, which is likely why we were politely stone-walled during our trip when we asked for details. Chinese hosts probably did not want to say anything about the reform with the official announcement about to be made (it was made during the second week of our trip). The Chinese have acknowledged in news media for domestic audiences that the reform is partly calculated to shift subsidies into the WTO’s “green box” so they can be increased without limit. They may have been reluctant to tell the USDA team anything that would contradict the “green box” claim.

The new subsidy combination has multiple objectives, some of which are contradictory:

- Target payments to actual grain producers.
- Shift subsidies to encourage new-style farmers who rent much of their land.
- Encourage production practices that restore soil fertility and reduce pollution from burning of straw.
- Shift subsidies into functions that can be reported to WTO as “green box” and are therefore not subject to limits imposed by WTO rules.
- Reduce administrative burden by combining three payments into one.

It is unclear how authorities will ensure that funds are used for these purposes, nor how they will verify that funds are used as such. We had hoped to learn this, but it probably has not been worked out yet.

Other contradictions:

- The new subsidies are to be more closely tied to production by denying payments for land that is used for non-grain purposes (livestock production, greenhouses, fish ponds, house or other construction, land that is permanently idled), but the subsidies are also “green box” payments not tied to production.
- Other initiatives plan to take land out of farm production—the “sickle region” plan seeks to cut marginal corn acreage about 6% by 2020 by converting it to minor grains or non-grain fodder crops or beans; pilot programs will retire rice land in Hunan Province contaminated by heavy metals and wheat land in counties of Hebei Province where underground aquifers are being seriously depleted.
- There are already other subsidy programs to promote soil fertility testing, deep-plowing, and markets for organic fertilizer. This is typical of China’s approach to support, which is not necessarily unique to this country: there can be multiple programs used to address the same objective, and each program may address more than one objective. It is rare for any program to have a single objective, thus they are hard to evaluate.

Agricultural Insurance

We discussed China and U.S. agricultural insurance programs in several meetings. Chinese colleagues are very interested in learning about U.S. programs in this area. The Chinese program has been ramped up in a short period of time and reportedly covers about 45% of cropland, most pigs and sows, dairy cattle and other livestock. Agricultural insurance is widely purchased but coverage is thin for many commodities and regions. The government subsidizes premiums, while the insurance is sold and serviced by companies who bid for the business, and participation by farmers is voluntary. The subsidy for premiums is shared by central, provincial, and county governments, but we were told that counties often fail to pay their share. Insurance guarantees are based on only a portion of cash expenses, hence there are many complaints from farmers about low coverage. Insurance companies claim they don't make money on agricultural insurance either. The insurance programs appear to function as "area loss" programs in which indemnification is usually to a group of farmers in a region hit by drought or flooding, which limits risk protection via indemnities for individual farm losses. (From other sources, we know that there have been disputes over whether pest damage to corn and sprouting or molding of wheat was covered; in some cases, the government intervened and ordered companies to pay indemnities.)

Credit Programs

At several of our meetings counterparts expressed interest in agricultural credit programs. This is a new development, related to the planned up-scaling of farms. China has very little formal agricultural credit. Most capital is raised by recycling earnings from sales of the previous year's crops/animals, savings, or informal borrowing.

The interest is mostly in obtaining working capital to finance input/feed purchases since large farms cannot finance their needs through traditional financing methods. It's no coincidence livestock-related companies have been among the proponents of credit development. New Hope Feed Group has an elaborate scheme that incorporates lenders, a loan guarantee company, insurance company and suppliers of feed and piglets to help farmers finance livestock operations. In Shandong, there is a new loan guarantee company capitalized by the local government to help farmers get loans for raising broiler chickens. The government-sponsored guarantee company paired with banks or credit cooperatives is a core strategy.

Collective ownership of farmland by villages is a bottleneck to credit development and expanding farm size to reduce unit costs. Individual farmers generally have no collateral to secure loans. There are experiments with lending secured by land use rights (again, for working capital). Most banks are state-owned or "cooperatives." Officials are encouraging various types of lenders, but have generally been slow to approve new banks that might drain deposits from existing (state-owned or cooperative) banks. They are experimenting with small mutual cooperative banks that are supposed to lend to local member-farmers and they are encouraging city-based companies and investors to invest in agriculture. Our meeting at Renmin University included discussions on efforts to develop peer-to-peer lending.

Organic farm visit

With assistance from the U.S. Embassy, the team visited Chunbo (translates as "spring planting") Organic Farm on the outskirts of Beijing in Miyun County. The farm has consolidated (and leased) 100 mu (16.5 acres) of land to grow organic vegetables. The farm sells its own products as well as other Chinese products and imported foods online. (Our interpreter discovered that she had purchased the farm's products through another online provider.) The marketing specialist who guided our tour acknowledged that their business model depends on an emerging educated middle class willing to spend on high-end food products. The farm has an activities building and playground to host groups of visitors, including schoolchildren.

The farm operates about a dozen greenhouses constructed by previous occupants, as well as open-air vegetable production between each building. The farm manager is university-educated, and we were hosted by a woman who focuses on marketing in Beijing. We were told workers are hired from the local area, but one individual said he was from Henan Province. The farm had a lot of equipment, including a small tractor bearing a logo saying it was purchased with the government's machinery subsidy program. A building housed an insect operation (ladybugs) for the farm's pest control program. An aromatic slurry from sheep dung produces biogas and organic fertilizer. Another company-operated farm occupied the adjoining property.

This farm incorporates many of the elements of a "new-style" farm: moderate scale, professional managers, "green" sustainable production methods, e-commerce, and branding. However, one thing it does not do, is produce staple food grains like rice or wheat. The inclination of new-style farms to shift toward non-grain enterprises—known as "non-grain-ization" is another contradiction and a worry for the food-security-obsessed Chinese regime.

Concluding Thoughts

Several concluding points can be drawn from our experience in China.

- China (1.3+ billion people) relies on U.S. agriculture for its food supply, and U.S. agriculture relies on China as one of its top export markets. Steady export gains are preferred to volatile trade resulting from policy shifts or the absence of good market information.
- China's policies appear to be headed in a more market-oriented direction, which benefits U.S. agriculture and other competitive suppliers.
- Market information and policy changes lack transparency but are improving.
- Success or failure of ongoing efforts to reduce costs and increase scale will affect U.S. agricultural export prospects to China in the next decade.
- More medium- to high-income consumers drive U.S. agricultural export prospects.
- The bottom line for the Farm Credit System is that borrowers (and lenders) need to consider both the downside risk and upside potential that accompanies one of the largest exports markets for U.S. agriculture.