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## **China's Cotton Reform Policy and Its Market Implications**

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Mr. Chairman, ladies and gentlemen, and friends of the cotton industry:

First, I would like to thank the USDA's World Agricultural Outlook Board and the Economic Research Service for this special invitation to attend the USDA Outlook Forum 2000 Cotton Session. It gives me an opportunity to speak and exchange our views on China's cotton market, to discuss our problems, and to strengthen our friendship.

In recent years, cotton analysts around the world have been closely watching China's cotton policy and marketing reforms. They also have watched changes in prices, the supply and demand balance in China, and its possible impacts on the world market. In fact, in an increasingly integrated world economy, any policy changes in China -- the world's largest cotton user -- will have significant impacts on the world market. Today, I would like to address some of these concerns.

### **I. Major Features of China's Cotton Marketing Reform**

For the past 50 years, with only a few exceptions, China's centrally planned cotton management system has contributed to a steady increase of cotton production, protected farm household income, stabilized cotton prices, supported the textile industry, and promoted cotton export sales. However, as China moves towards a market-oriented economy, the centrally planned system has become obsolete and has shown weaknesses such as: (1) a highly centralized cotton production policy cannot react to the market changes in a timely manner when textile and farm inputs industries are liberalized; (2) the State management system cannot allocate profits or the use of resources among producers, mills, and commercial sectors; (3) rigid government procurement prices heavily distort the balance between cotton supply and demand; and (4) the micro-management by the government, which tried to separate the three distinct market functions of cotton production, procurement, and sales, has created conflicts of interests among functional groups and added costs of management.

Consequently, since the mid-1990s, the government has decided to reform the cotton marketing system in China. Major reform programs include the following steps: (1) to organize cotton trading events, allowing both buyers and sellers to meet face to face in negotiating mutually beneficial contracts; (2) to allow cotton sale prices to be flexible enough to fluctuate within a range based on market supply and demand conditions; and (3) to adjust cotton procurement prices and authorize cotton companies to buy cotton at a premium or discount, etc.

In late 1998, the government announced that the cotton marketing reform programs would start in the 1999 marketing year (September-August). It was a rare opportunity because China had abundant supplies and faced increasing use of fiber substitutes for cotton. The purpose of the reform was to lead the cotton industry into a market-oriented economy with a better reallocation of resources. Key

programs included in this announcement were: (1) use a suggested, non-binding, government guidance price to replace uniform procurement and sale prices; (2) allow certified mills to buy cotton directly from farmers; (3) promote a cotton quality inspection and grading system; (4) establish and foster the growth of a new national cotton exchange; and (5) re-adjust cotton production areas with an emphasis on increasing yield.

In June 1999, the government implemented more detailed programs to discourage cotton production and to improve cotton marketing in China. They were: (1) control the rate of expansion of Xinjiang's cotton area and reduce cotton production in both the Yangtze and Yellow River basins; (2) emphasize quality differences with higher prices for premium grade cotton starting with 1999 crops; (3) assign responsibility to the provincial governments to manage local production, procurement, and sales; (4) enhance cotton quality standards and strictly forbid blending of different grades of cotton; and (5) separate debts and losses between old and new crops and re-check cotton inventory and business account balances.

These reform programs demonstrate that China is gradually stepping into a new market system which will improve the allocation of resources. In the long-term, these reforms will help China to develop a balance between supply and demand. They will also create an orderly marketing system and move toward a better integrated, more open, and competitive market. Meanwhile, these reforms also will contribute to the stabilization of the world market.

However, it is too early to evaluate and to get a complete picture of the possible impacts resulting from these reforms. On the one hand, the reform was introduced at a time when China has a plentiful supply of cotton. Looking back at history, we see that in most years China has been a net importer. Therefore, cutting back production may create new problems in the future. On the other hand, we still need more program details for implementation. For example, under the new policy direction, how can we be sure that China's cotton production will be stable? The government says it they will use "macro" management methods to control production, market circulation, and uses, but what are these methods? Who is going to take care of cotton producers when government procurement prices no longer exist? As farmers' interest in growing cotton wanes, who can guarantee that cotton production will be sustained? Clearly, all these reforms have long-term implications for the entire cotton industry.

## **II. Current cotton supply and demand situation in China**

Most cotton analysts are familiar with China's cotton supply and demand, but they may be confused by the behavior of China's markets. For example, we see lots of cotton in the warehouses, but local mills cannot find enough domestic supplies. In another puzzling example, while domestic demand is growing, China is exporting cotton to foreign markets. Finally, total domestic supply exceeds demand, but cotton prices are steadily increasing. I believe that these are temporary phenomena, which demonstrate that China's cotton sector is in a transitional period. Also, one can argue that the reform programs are effective and have achieved short-term policy goals. To answer these questions, let us take a look at China's cotton supply and demand balance sheet for 1998/99 and 1999/2000 (see table).

Table 1: Cotton Supply and Uses in China, 1998/99-1999/00

	Unit	1998/99	1999/00 (preliminary)
Areas	Million hectare	4.46	3.75
Production	Million ton	4.50	3.83
Commercialized quantity	Million ton	4.30	3.65
Imports	Million ton	0.07	0.05
Available supply	Million ton	4.37	3.70
Mill use	Million ton	3.70	4.00
Wadding and other uses	Million ton	0.05	0.05
Exports	Million ton	0.18	0.30
Waste	Million ton	0.10	0.10
Total use	Million ton	4.03	4.45

Note: Figures are for a September-August marketing year.

First, let us take a look at cotton supply. In 1999, cotton production decreased because of falling prices, government policies of discouraging sown areas, and local adjustments of rearranging cropping patterns. According to surveys conducted by the National Bureau of Statistics (NBS, formerly known as SSB), cotton area decreased from 4.46 million hectares in 1998 to 3.75 million hectares in 1999, a decrease of 16 percent. Cotton production decreased from 4.5 million tons in 1998 to 3.83 million tons in 1999, a decrease of 15 percent. After we deduct farmers' on-farm use from their production, the 1999 quantity available for commercial use is estimated at 3.65 million tons, a drop of 0.65 million tons from the 1998 level.

On the demand side, a NBS survey showed that 30.8 million pieces of yarn were produced in 1998. If we assume that cotton accounted for 64 percent of the total fiber used in yarn production, then we estimate that mill use was about 3.7 million tons in 1998. Since the second half of 1999, China's textile exports have stayed strong. Total yarn production was estimated about 32.3 million pieces in 1999, an increase of 5 percent from previous year. Assuming the same 64 percent of cotton used in yarn production, mill use could be 4 million tons in 1999. Wadding, wastes, and other uses accounted for 0.15 million tons. Exports were estimated at 0.3 million tons. Therefore, total demand of various uses summed up to 4.45 million tons, which exceeded 1998's 4.03 million tons by 0.42 million tons. At the end of this balance sheet, the gap between supply and use was a shortfall of 750,000 tons for 1999.

You may have noticed that this balance sheet is different from USDA's balance sheet, lacking beginning and ending stocks. When the cotton marketing reform was implemented in 1999, one of the government rules was that cotton companies have to separate old crop losses or debts from the accounting for the new crop. Because new crop prices were much lower than the 1998 crop's procurement costs, cotton companies were unable to sell 1998 cotton to any market with a profit. In other words, no 1998-crop cotton could be made available for the 1999/2000 market. Therefore, the beginning stock for 1999/2000 is effectively zero. However, there were about 100,000 tons (approximately enough for 10 days mill use) of 1998 cotton already in the pipeline at the beginning of 1999/2000. If we deduct this 100,000 tons from the 750,000-ton gap between supply and use for 1999/2000, the actual expected gap is about 650,000 tons.

Because of surplus cotton accumulated during past several years, China's government made an early decision at the beginning of 1999 to export cotton to the world market. However, in reality, these export sales have enlarged the gap in the 1999 marketing year; consequently, domestic cotton prices have increased throughout the year. Now, China still has plenty of 1998 or earlier cotton stored in the warehouses.

### **III. How cotton prices were established and price trend**

In 1999, which was the first year for the implementation of China's cotton reform program, producers, mills, cotton companies have all watched changes of prices at various stages in the marketing chain. Buyers and sellers were continuously searching for better prices and continuously making pricing decisions. They want to be sure that prices are formulated through competition and that these observed prices really reflect changing conditions of market supply and demand.

In general, China's cotton procurement price formation can be analyzed by following it through four distinct stages: (1) before planting season begins, the government announces a guidance price as a reference point for future procurement purposes. This guidance price is calculated using multiple economic factors such as farm input costs, labor costs, price ratios between grain and cotton, domestic market conditions, and a nominal price trend. This guidance price is a non-binding agreement between producers and the government. It serves as a reference price for farmers to make planting decisions only; (2) before farmers turn in their cotton to local procurement stations, the All-China Federation of Supply and Marketing Cooperatives will conduct surveys and then suggest a procurement price for local cotton companies; (3) to avoid price differentials between regions, counties, or between different business entities, local procurement prices will be cross-checked by government procurement stations and mills in the same locality, possibly including neighboring counties or provinces when necessary; and (4) local procurement prices can be adjusted, up or down, according to changes in the market.

Xinjiang is the only major cotton production province for which China's government announced a 1999 procurement price. The price for Xinjiang's standard grade cotton was 7,400 yuan per ton, with a between-grade price differential of 5 percent. Procurement prices ranged between 7,600 and 8,000 yuan per ton in the Yangtze River basin while the price range was between 7,200 and 7,600 yuan per ton in the Yellow River basin. Prices were low when new crop sales started, then prices rose gradually, and reached between 8,000 and 8,400 yuan per ton.

The formula for calculating the cotton sale price is more complicated, and also more sensitive. The sale price is based on local cotton companies' procurement price plus administrative, ginning, inspection, baling, storage, and shipping costs. Also, the price includes interest on commercial loans and relevant taxes and fees. Cotton business entities, mostly cotton companies, would offer a price to local cotton warehouses based on the market condition of yarn prices plus a profit margin for the supplier.

Cotton companies can receive nation-wide price information from 100 or more markets through their computer networks. They also can subscribe and receive published newsletters on a regular basis. The newly established China National Cotton Exchange (see Section V) also provides daily price information to the public.

Since the 1999 new crop cotton began entering the market, with the exception of few short periods of price stagnation or slight declines, cotton prices have risen steadily. In October 1999, the price for the standard grade of 327 was around 8,600 yuan per ton. Since November, as cotton production and procurement quota amounts became apparent, and since textile products sales to foreign and domestic

markets were increasing, average cotton prices increased about 100 yuan each week. In late January 2000, standard grade of 327 was approaching 10,500 yuan per ton, while grade 229 has exceeded 11,000 yuan per ton.

I believe that cotton prices will keep on rising for next several months for the following three reasons: (1) although government has two separate treatments for new and old cotton (where “old ” cotton refers to cotton stored in warehouses at the end of 1998/99) and we still have an overall surplus, I see a shortfall of cotton in the coming year if the old cotton remains in storage; (2) thanks to the recovery of the Southeast Asia economy, I have seen increasing yarn production and growing export sales of textile products from China; and (3) prices of synthetic fibers have stayed high and the blending rate of cotton in fiber consumption is increasing.

I am unable to tell how far the cotton price will rise. It depends on specific government decisions about what to do with the 1998 and earlier stored crops. If the government authorizes sales of the 1998 cotton, it implies that the government is willing to take a loss, or to subsidize domestic cotton companies, or to let go interest payments incurred from the existing debts. This decision would be helpful to stabilize market prices. On the contrary, if the government does not want to sell 1998 cotton, it means that cotton stored in the warehouses cannot be moved into commercial channels, and prices will rise.

While the centrally planned management system has been discarded, the new market order has not yet been fully established. Most transactions have been conducted on a person-to-person basis with negotiations and inspections on the spot. The sales were made in an inefficient manner and buyers had no way to diversify their risk. If the price trend is rising, buyers face no risk. But, if the prices start to fall, buyers will have no recourse but to lose money.

#### **IV. Forecasts of China’s Cotton Production in 2000**

In China, there are five key factors that influence a producer’s planting decision: (1) the State intervention policy of encouraging or limiting sown areas; (2) the level of cotton procurement price and its relative position compared to grains; (3) yields and land fertility that are directly linked to household income; (4) weather; and (5) local cropping patterns, especially where cotton is inter-cropped with winter wheat. The first three factors listed above are the most important.

In 1999, the average procurement price for roller-ginned cotton ranged between 380 and 400 yuan per dan, a significant drop of 35 to 38 percent from the previous year’s level. Based on the available commercial supply of 73 million dan (or 3.65 million tons), we calculated that farmers’ income from cotton declined 15.8 to 17.3 billion yuan due to the drop in procurement prices. It was a record loss.

When we look at national average price levels, the procurement prices were near or even below the costs of production. Producers earned no profit in 1999. Now, the government is still discouraging cotton production. Therefore, it is clear that China’s cotton areas will be reduced further and production will decrease again in 2000. There will be some regional differences in these decreases. For instance, Xinjiang has better weather and irrigation systems, fewer pest problems, and lower production costs. Producers in Xinjiang can maintain or slightly drop their planted areas even when they are facing a decrease in the procurement price because planting cotton can generate higher income than planting alternative crops. We estimate that Xinjiang will have 14 million mu (or 0.93 million hectares) of sown area, with an estimated production of 1.35 million tons.

Producers in the Yangtze River basin have more options. High yield farmers will continue to plant cotton while low yield farmers will be forced to plant alternative crops. We estimate that total area in Yangtze River basin will decrease from 18.5 million mu in 1999 to 16 million mu (or 1.07 million hectares), with an estimated production of 1.1 million tons.

The Yellow River basin area producers have a long history of including cotton as a part of their cropping pattern. In Henan, farmers are accustomed to inter-cropping wheat and cotton because it generates a profitable income possibility for them. Also, it takes time for farmers to switch between crops. In Shandong, after many years of reductions, cotton area has fallen and approached its lowest point. There is little room to drop any further. Hebei province has successfully tested pest-resistant new varieties in recent years. Farmers are now willing to plant more cotton and we have seen the rising trend in sown area in recent years. Therefore, we estimate that total area in the Yellow River basin will be no less than 16 million mu (or 1.07 million hectares), with an estimated production of 0.95 million tons.

In summary, total area reduction will be 5 million mu for the crop in 2000, a decrease of 8 to 10 percent. Total production is estimated at 3.5 million tons, another drop of 300,000 to 350,000 tons from 1999. Lower area and production will help China re-balance supply and demand, and also reduce the pressure from mounting inventories. However, a severe cutback in cotton production is a de-stabilizing influence that may hurt producers and their willingness to again risk planting cotton. This dramatic drop could have negative repercussions and create undesirable price and production instability.

The above analysis is preliminary based on our limited information. Actual planting area will depend on the future development of weather conditions, expected market returns of cotton, and government support policies for both cotton and competing grains.

## **V. An Introduction of China's National Cotton Exchange**

In late 1998, the government firmly stated that cotton marketing reform has to “foster a cotton trading place, promote orderly marketing of cotton.” Therefore, we decided to establish the China National Cotton Exchange (CNCE), which serves as the center for trading cotton in China. CNCE has established a computerized network to manage all trade and sales. The computerized system also can disseminate price information to the public. I would like to use this opportunity to provide a brief introduction of the CNCE.

CNCE was established based on the government decision. It is a market sponsored by the All-China Federation of Supply and Marketing Cooperatives. CNCE is a nonprofit organization with the sole purpose of serving the cotton industry. There are 13 supervisory agencies that oversee the operation of CNCE including the State Planning and Development Commission, Ministry of Finance, State Bureau of Textile Industry, Ministry of Agriculture, State Bureau of Business Administration, State Bureau of Technical Supervision, and China Agricultural Development Bank, etc. The CNCE is headquartered in Beijing, with 20 branch offices in major cotton production and consumption areas. Trading rules and regulations are uniformly applied to headquarters and all branch offices. Computer networks were established between headquarters and branch offices, and among branch offices. CNCE follows the business ethics of openness, fairness, justice, and fidelity. In addition to the market function of price discovery and risk management, the CNCE also provides services such as a financial clearinghouse, quality certification, short-term storage, market information and consultation, and training and education. The State authorizes the CNCE to sell or buy cotton for the State Reserve System; therefore, CNCE can provide balancing transactions to stabilize market prices.

CNCE adopted a membership system. Members include those companies registered in China as a cotton business entity, textile industry, import and export trading companies, and other eligible cotton business operations in China. Currently, CNCE has 70 members. Among them, there are 53 cotton business entities, 12 textile mills and companies, and one cotton import and export trading company. The government also authorizes four regulatory agencies as members. CNCE members can serve as brokers in helping non-member companies to get involved with trading activities. Non-members have complete freedom to choose among members, but can have no direct business relationship with CNCE.

The CNCE has completed preparations for floor trading activities and is testing the procedures. From October 1999 to the end of January 2000 testing period, CNCE has completed sales of 130,000 tons of old crop cotton stored in the warehouses, valued at 1.2 billion yuan. These sales were made through a competitive bidding process. First, cotton warehouses made assembled lots of cotton. Each lot's tonnage usually weighs between 120, 500, or 1,000 tons. Then the public sales were made for these lots. Total weights and initial offering prices of each lot were announced to CNCE members before the sale. Offering bid prices were based on the salvage costs from warehouse and were converted to RMB/ton. To ensure that the bidding process is competitive, the computer will wait for 2 minutes for each new bid before closing the deal. If no buyer makes a new bid within the 2-minute waiting period, then the transaction is completed. CNCE members have an equal footing and should have enough time to participate in and to respond to the floor activities. When the transaction is completed, both buyer and seller receive a computer printout of final bid and the entire contract immediately.

Now, when we look at the history of CNCE final bidding prices, we conclude that the CNCE has provided a mechanism for establishing cotton prices in China based on market supply and demand. This is a good start. We hope that CNCE will contribute more to China and world cotton markets in the future.

We welcome all of you as friends to visit and tour our Exchange. We are also willing to find mutually beneficial, cooperative opportunities to work together.

Thank you.

[Conversion factors: 1 hectare = 15 mu; 1 ton = 20 dan = 2,204.6 pounds;  
1 dan = 50 kilogram; 1 US\$ = 8.3 yuan (RMB)]

(Translated by Hsin-Hui Hsu, USDA/ERS)